

JULY 26, 1954

Meet "Jawn Henry" . . . p. 30

# RAILWAY AGE

The Standard Railroad WEEKLY for Almost a Century



## 1/3 mile of new "Roller Freight" cars to speed Western Maryland shipments

THE fifty "Roller Freight" hopper cars shown above, recently delivered to the Western Maryland, are this railroad's newest answer to the problem of keeping freight trains on time.

Since the axles are mounted on Timken® tapered roller bearings, there's no problem of hot box delays. Timken bearings eliminate metal-to-metal sliding friction. They *roll* the load.

Terminal delays are cut, too, with "Roller Freight". Bearing inspection consists of a single quick operation: feeling the journal cover to determine the bearing's temperature.

The delay-free dependability of "Roller Freight" can be the railroads' most powerful selling tool in going after new freight

business. But besides this, "Roller Freight" brings with it great savings in operating and maintenance costs. 90% on terminal bearing inspection man-hours. Up to 89% on lubricant. The estimated savings to be made when all the railroads go "Roller Freight" come to a staggering \$190 million a year!

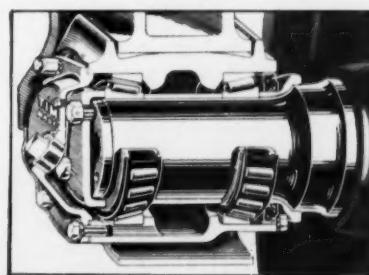
For a detailed economic analysis of the costs and savings possible with "Roller Freight", write: The Timken Roller Bearing Company, Canton 6, Ohio. Canadian plant: St. Thomas, Ontario. Cable address: "TIMROSCO".

# TIMKEN

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BEARINGS

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What's Good Diesel Maintenance?

Revenues and Expenses of Class I Roads

Why Monon Moved to the Suburbs

How Bad Is a Little Socialism?

Modernization the Watchword in Cuba



**UNRETOUCHED PHOTO**  
showing bearing after  
approximately 750,000  
miles of service. Note  
that grease has retained  
its consistency. This is  
typical of the long-lasting  
protection afforded  
by Texaco 979 Roller  
Bearing Grease.

# TEXACO 979 ROLLER BEARING GREASE

**MORE THAN 50** leading railroads use *Texaco 979 Roller Bearing Grease*. Millions of miles of actual road service prove that it assures—

- ★ **Better Lubrication**—reaches and protects all parts of the bearing.
- ★ **Longer Service Life**—resists leakage, stays in the bearing, retains consistency in severe service.
- ★ **Superior Oxidation Resistance**
- ★ **Year 'Round Lubrication**—equally effective winter and summer, no seasonal change required.

Fully meets all A.A.R. specifications and was among the first greases to be ...

**A.A.R.  
APPROVED**

for journal roller bearings

★ **Greater Protection Against Rust and Wear**—seals out dirt and moisture.

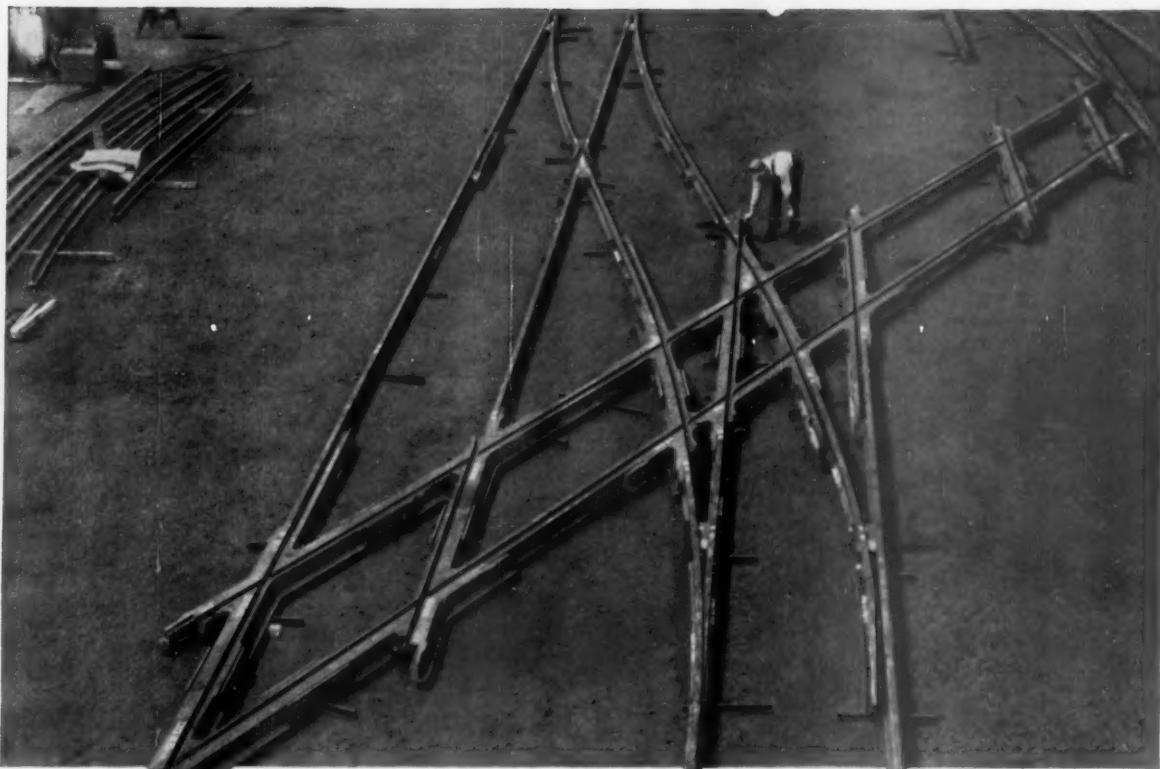
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**TEXACO Railroad Lubricants  
AND SYSTEMATIC ENGINEERING SERVICE**





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## IT GETS SPECIAL HANDLING HERE

Need some out-of-the ordinary trackwork? A double slip? High-speed crossover? Or perhaps a complicated arrangement like the industrial layout shown above?

Turn the job over to Bethlehem. Just give us the details, we'll take over from there.

Here's how we operate: First, we prepare approval plans. After you OK them, we fabricate the track components. Then comes complete assembly of the job at our plant—yes, we have plenty of floor space to handle even an extensive layout!

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You'll find this the easy and satisfactory way to get that special trackwork you need. And the economical way. Just ask a Bethlehem engineer; he's available through the nearest Bethlehem office.

BETHLEHEM STEEL COMPANY

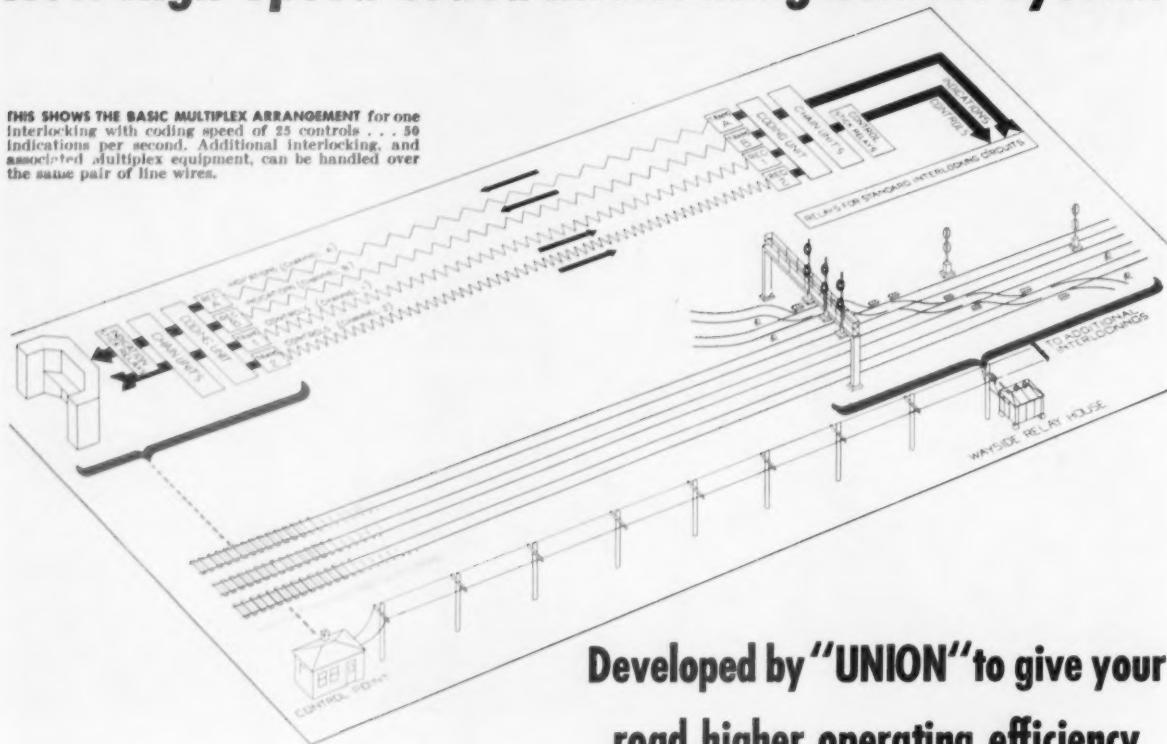
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# New High-Speed Coded Interlocking Control System

THIS SHOWS THE BASIC MULTIPLEX ARRANGEMENT for one interlocking with coding speed of 25 controls . . . 50 indications per second. Additional interlockings, and associated multiplex equipment, can be handled over the same pair of line wires.



Developed by "UNION" to give your road higher operating efficiency

## "UNION" Multiplex Code Control System



THE MULTIPLEX CODE CONTROL SYSTEM uses standard Style C or UR control machines.

ARE you planning to build a new remotely-controlled interlocking . . . modernize an older one . . . or consolidate present interlockings for greater economies? If you are, consider these features of the new "Union" Multiplex Code Control System:

- It's the fastest all-relay coded interlocking control system yet developed.
- Basic system transmits 25 controls and 50 indications per second. Can be expanded in multiples of 25 controls and 50 indications per second, such as 50 and 100 per second . . . 75 and 150 per second . . . simultaneously over one pair of line wires.
- Each code can contain complete control and indication information for all functions at the interlocking . . . therefore a complete route can be set up with one code.

The "Union" Multiplex Code Control System is designed especially for large and busy interlockings. May we tell you the rest of the story?

## UNION SWITCH & SIGNAL

DIVISION OF WESTINGHOUSE AIR BRAKE COMPANY

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July 26, 1954

Vol. 137, No. 4

## Week at a Glance

Diesels continue to gain; in the first third of 1954 they  
handled between 80 and 90 percent of all types of rail-  
road traffic. 7

**FORUM**—Is a little socialism as bad as a lot? Why not  
let individual communities foot the bill for "community  
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Meet "Jawn Henry" — That's the name that's been  
given to the N&W's new No. 2300 steam turbine electric  
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speed Icl movement in the Chicago area. 36

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William E. Dillard heads the Central of Georgia as  
president and general manager succeeding Ben J. Tar-  
button, retired. Ralph E. Sease named assistant general  
manager. 40

No trouble in the tropics as pioneer Venezuelan ore line  
completes two years of operation. 46

## BRIEFS

Further expansion of piggyback by the Chicago &  
North Western took effect on July 15 when the road  
published a tariff for trailer-load shipments between

**Current Statistics**

| Operating revenues, five months           |                  |
|---|------------------|
| 1954 .....                                | \$ 3,805,777,942 |
| 1953 .....                                | 4,402,891,403    |
| Operating expenses, five months           |                  |
| 1954 .....                                | \$ 3,072,350,378 |
| 1953 .....                                | 3,333,975,239    |
| Taxes, five months                        |                  |
| 1954 .....                                | \$ 365,310,470   |
| 1953 .....                                | 528,226,305      |
| Net railway operating income, five months |                  |
| 1954 .....                                | \$ 265,542,524   |
| 1953 .....                                | 448,751,912      |
| Net income, estimated, five months        |                  |
| 1954 .....                                | \$ 166,000,000   |
| 1953 .....                                | 338,000,000      |
| Average price railroad stocks             |                  |
| July 20, 1954 .....                       | 69.02            |
| July 21, 1953 .....                       | 64.09            |
| Carloadings, revenue freight              |                  |
| Twenty-eight weeks, 1954.....             | 17,549,202       |
| Twenty-eight weeks, 1953.....             | 20,318,459       |
| Average daily freight car surplus         |                  |
| Week ended July 17, 1954 .....            | 96,198           |
| Week ended July 18, 1953 .....            | 32,978           |
| Average daily freight car shortage        |                  |
| Week ended July 17, 1954 .....            | 455              |
| Week ended July 18, 1953 .....            | 3,988            |
| Freight cars delivered                    |                  |
| June 1954 .....                           | 2,650            |
| June 1953 .....                           | 6,463            |
| Freight cars on order                     |                  |
| July 1, 1954 .....                        | 13,860           |
| July 1, 1954 .....                        | 52,315           |

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**Week at a Glance** CONTINUED

the metropolitan areas of Chicago, Waukegan and Milwaukee to points in Wisconsin's Fox River Valley such as Appleton, Depere, Neenah, Menasha and Green Bay. Heretofore the service has been limited to the incorporated boundaries of the cities named. Now surrounding communities are also included.

**Four American railroad mechanical men,** representing as many large roads, are understood to have taken off for Europe last week to make a first-hand study of light-weight motor trains in Germany and Spain.

**The Pennsylvania's new \$10-million ore pier** at Philadelphia is to receive, on August 5, the first cargo of iron ore to be shipped from the new Labrador-Quebec mines. Arrival on the S.S. Hawaiian of an anticipated 20,000 tons will coincide with official dedication of the pier; will mark the largest single ore shipment ever to reach Philadelphia; and will closely follow official opening, from the mines to tidewater, of the new 360-mile Quebec, North Shore & Labrador Railroad (*Railway Age*, July 5, page 4).

**A decision by the six-man arbitration board** currently hearing the wage demand case of the Brotherhood of Locomotive Engineers, can be expected on or before August 23. With final arguments and briefs due by the end of this month, the board set the above date as the latest that it would file its decision in the U. S. District Court in Chicago.

**Time-lag and trip-lease bills** apparently fell victim to the end-term rush in Congress when last Wednesday's session on the disputed issues before the Senate Interstate and Foreign Commerce Committee was postponed indefinitely. "Must" legislation already on the floor of the Senate reportedly took precedence over the committee's scheduled executive meeting.

**Tumbleweed** is being used by the Texas & Pacific to keep drifting sand off its tracks. The weed is boxed between two rows of barbed-wire fence set a yard apart.



## Is your Railroad getting its share... of this huge new revenue?

**Here's a startling fact!** Last year motorists drove approximately 500 billion miles between cities! This one fact represents your biggest and most persistent competition . . . therefore, it also offers your greatest source of new passenger revenue!

**Hertz has effective solution!** People drive long, tiring, hazardous road miles *not* because they want to drive . . . but frequently because *they need a car at their destination*. Hence, the Hertz Rail-Auto Plan strikes at the very core of city-to-city driving:

*It sells rail travel to travelers for greater comfort and speed . . . and a car from Hertz upon arrival for their private use.*

**Hertz Rail-Auto Plan brings startling results!** As promoted by Hertz with the ever-increasing cooperation of railroads, this Plan has brought increased revenue to both Hertz and the railroads:

**Last year alone, people who rented cars from Hertz at their railroad destinations, traveled approximately 136 million miles on railroads! And this is most important!** Questionnaires showed that most of these passengers traveled these rail miles mainly because they knew they could rent a car from Hertz upon arrival!

**Hertz advertising continually produces increasing revenue!** Hertz spends nearly \$1,000,000 annually in leading national magazines, to promote the Rail-Auto Plan. Millions of readers know about the convenience, safety, comfort and time-saving features of this Plan. *They accept and demand Hertz as the finest Rent-A-Car service . . . with nearly 800 stations in over 550 cities throughout the world!* More than 1,500,000 travelers who now hold Hertz Charge Cards and Courtesy Cards . . . the many thousands who have Rail Credit Cards . . . and thousands of non-holders . . . constantly rent and enjoy clean new cars with all gasoline, oil, Public Liability, Property Damage, Fire

and Theft Insurance, and \$100.00 deductible collision protection included in the low rate—*at no extra cost!*

### How your Railroad Can Help Win Huge Additional Revenue

1. In all your general advertising, urge travelers to use the Rail-Auto Plan. Explain its many advantages.
2. Use displays in your ticket offices.
3. Advertise the Plan in all your timetables.
4. Tell your ticket agents about Hertz 10% commission. Urge them to ask this simple question of all passengers: **May I reserve a Hertz car at your destination?** It takes only a few moments to fill out the reservation forms. Upon completion of the car rental at the passenger's destination, the Hertz station will pay 10% commission on total rental charge to your agents.
5. To further promote Rail-Auto Travel, write us today for small plastic signs for your ticket agents' windows. They display this message: Reserve your Hertz Rent-A-Car from your ticket agent.

### TRY THE HERTZ RAIL-AUTO PLAN YOURSELF!

See for yourself how the Hertz Rail-Auto Plan offers great convenience . . . comfort . . . and economy in time and money to passengers. Enjoy a clean, new car from Hertz . . . drive it as your own . . . for as long as you please . . . wherever you please. Try it next time you travel. Prove it to yourself . . . and you'll urge others to use it also.

**WRITE** today for additional information . . . reservation forms and other material your agents may need to promote the profitable Rail-Auto Plan.



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# Just **ONE IDEA** taken from this FREE 56-page Oakite booklet can save money for your road... help do many maintenance jobs easier, faster, safer

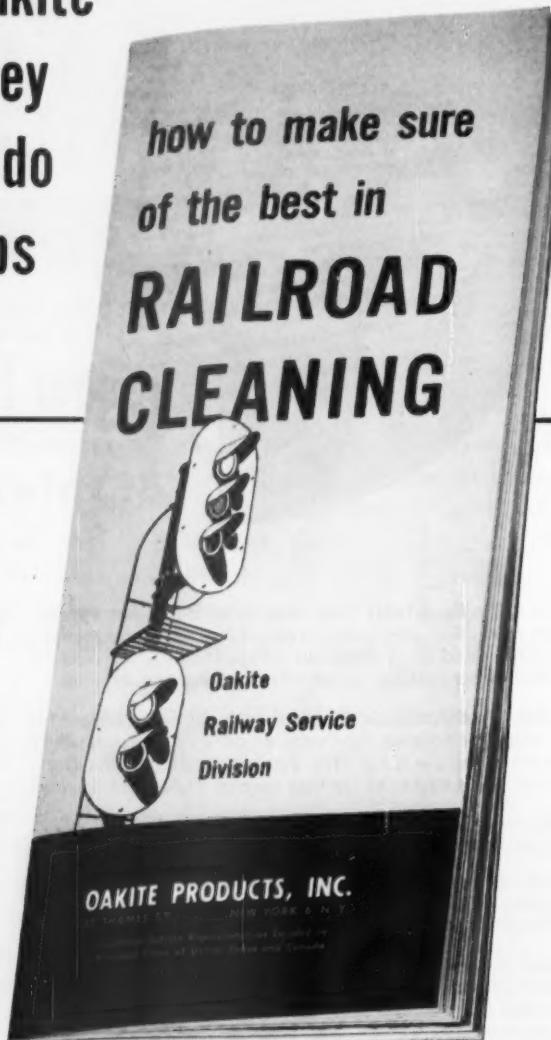
Between the covers of this 56-page booklet you will find described and illustrated many job-tested cleaning short-cuts. It's the kind of practical, down-to-earth information that can lead to better maintenance and overhaul of steam and Diesel power.

You can learn how to speed up and simplify jobs such as these:

- Cleaning Journal Boxes
- Cleaning and Rust-Proofing Roller Bearings by New, Mechanized Mass Production Method
- Semi-Automatic Cleaning of Running Gear
- Filter Cleaning
- Coach Washing... Manual and Mechanical

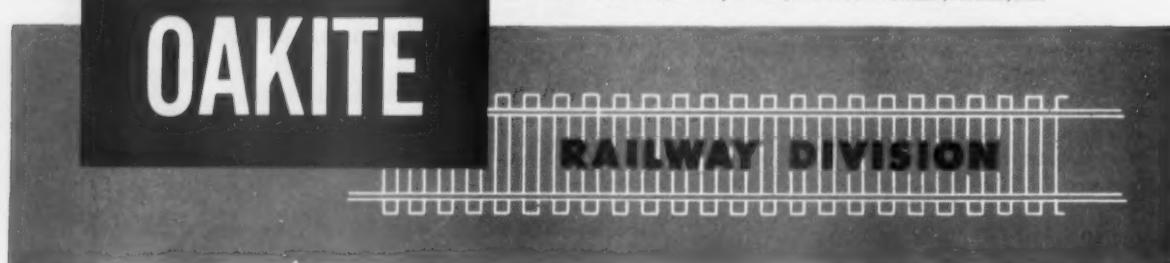
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**THAT CAREFUL HANDLING OF FREIGHT** is an all-year-round proposition is demonstrated by the special meeting on that subject, sponsored by the Toledo Association of Railroad Superintendents in June, and attended by a large number of train and engine service employees. Shown here at the meeting, from left to right, are W. L. Harvey, district manager, Car Service Division, Association of American Railroads, Detroit; C. J. Millikin, assistant general manager, Chesa-

peake & Ohio, Detroit; H. J. Commes, traffic manager, Nash-Kelvinator Corporation, and president, Great Lakes Regional Advisory Board, Detroit; O. R. Crooks, general manager, Toledo Terminal, and president of the superintendents' association; and A. T. Van Huss, general claim agent, Detroit, Toledo & Ironton, Dearborn, Mich. F. M. Shelton, special representative, operating department, Nickel Plate, at Toledo, acted as chairman of the meeting.

## Operations

### Journal Box Repacking Extended Three Months

As a result of recent letter ballot returns tabulated by the Mechanical Division of the Association of American Railroads, Interchange Rules 3, 9 and 66 have been modified so as to add three months to present journal box repacking periods for freight cars.

The definition and designating letters for freight cars, as shown in Section L of the Manual, also have been amended to include reference covering a new type of freight car having removable superstructure.

### Bill Would Fine Carriers For Segregating Passengers

A bill to provide a \$1,000 fine for any common carrier, or common-carrier agent, which "willfully" and "unlawfully" segregates passengers in interstate travel, was approved last week by the House Committee on Interstate and Foreign Commerce.

Rep. John W. Heselton (Rep., Mass.), author of the bill, said he

was "optimistic" it would be approved by the House and Senate before the current session of Congress ended. The bill provides that a carrier, or its agent, shall be guilty of a misdemeanor, and subject to a \$1,000 fine, for each case of segregation or attempted segregation.

### Heller Associates to Study Pennsylvania Organization

Robert Heller & Associates, Cleveland management consultant firm, has been engaged to study the organization structure of the Pennsylvania, and "to make recommendations for improving it in the light of practical experience, present-day competitive conditions, and advances in the art and science of large-scale industrial management."

The Heller group has been working with the PRR for the past two years on improvement of passenger operations, but this is the first time in the railroad's history, according to President J. M. Symes, that such an organization has been employed to analyze

the company's overall structure.

The Heller study, Mr. Symes emphasized, will not involve appraisal of railroad personnel, but will be concerned with "functions and the organizational arrangements for carrying them on in the most efficient and economical ways."

### Moloney to Join AAR As General Attorney

William M. Moloney, general attorney of the Gulf, Mobile & Ohio since 1946, will join the legal staff of the Association of American Railroads August 1 as general attorney. Mr. Moloney, who has practiced extensively before the Interstate Commerce Commission and other government agencies, in recent years also represented all southeastern railroads in the so-called government-reparations cases.

### Diesels Handled 83.35% of Freight in 1st Four Months

Diesel-electric locomotives handled 83.35% of Class I railroad freight traffic—measured in terms of gross ton-miles of cars, contents and cabooses—during the first four months of 1954, according to "Monthly Comment," the review issued by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission. This compared with 73.58% of such traffic handled by that type of motive power in the comparable 1953 period.

Almost 85% of locomotive-propelled passenger-train car-miles during the first four months of 1954 were handled by diesel-electric locomotives, compared with 77.22% in the 1953 period. Diesel-electrics accounted for 88.93% of total locomotive-hours in yard switching during this year's first four months, compared with 81.92% in the like 1953 period.

## Figures of the Week

### Freight Car Loadings

Loadings of revenue freight in the week ended July 17 totaled 694,545 cars, the Association of American Railroads announced on July 22. This was an increase of 124,983 cars, or 21.9 per cent, compared with the previous (holiday) week; a decrease of 96,869

cars, or 12.2 per cent, compared with the corresponding week last year; and an increase of 85,545 cars, or 14.0 per cent, compared with the equivalent 1952 week.

Loadings of revenue freight for the week ended July 10 totaled 569,562 cars; the summary, compiled by the Car Service Division, AAR, follows:

| REVENUE FREIGHT CAR LOADINGS<br>For the week ended Saturday, July 10 |            |            |            |
|--|------------|------------|------------|
| District   | 1954       | 1953       | 1952       |
| Eastern  | 86,711     | 119,520    | 93,328     |
| Allegheny  | 102,964    | 146,443    | 85,527     |
| Pocahontas   | 37,013     | 47,908     | 39,289     |
| Southern   | 91,011     | 107,583    | 106,633    |
| Northwestern   | 97,902     | 127,755    | 67,663     |
| Central Western  | 104,805    | 117,080    | 121,971    |
| Southwestern   | 49,156     | 55,165     | 57,951     |
| Total Western Districts  | 251,863    | 300,000    | 247,585    |
| Total All Roads  | 569,562    | 721,454    | 572,362    |
| Commodities:   |            |            |            |
| Grain and grain products   | 53,637     | 57,371     | 69,822     |
| Livestock  | 5,601      | 5,639      | 5,876      |
| Coal   | 78,701     | 101,494    | 82,349     |
| Coke   | 7,048      | 12,653     | 3,855      |
| Forest products  | 28,857     | 38,696     | 41,178     |
| Ore  | 65,755     | 93,555     | 11,556     |
| Merchandise l.c.i.   | 49,833     | 62,927     | 64,737     |
| Miscellaneous  | 280,110    | 349,119    | 292,989    |
| July 10  | 569,562    | 721,454    | 572,362    |
| July 3   | 618,597    | 670,273    | 447,516    |
| June 26  | 713,160    | 818,450    | 646,480    |
| June 19  | 707,208    | 812,578    | 643,969    |
| June 12  | 697,583    | 797,252    | 631,042    |
| Cumulative total, 28 weeks   | 17,549,202 | 20,318,459 | 19,555,803 |

**In Canada.**—Carloadings for the seven-day period ended July 7 totaled 64,964 cars, compared with 104,573 cars for the previous nine-day period, according to the Dominion Bureau of Statistics.

|                    | Revenue Cars Loaded | Total Cars Rec'd. from Connections |
|--------------------|---------------------|------------------------------------|
| Totals for Canada: |                     |                                    |
| July 7, 1954       | 64,964              | 25,009                             |
| July 7, 1953       | 70,447              | 29,108                             |
| June 30, 1954      | 104,573             | 36,349                             |
| June 30, 1953      | 110,367             | 44,899                             |
| Cumulative Totals: |                     |                                    |
| July 7, 1954       | 1,810,380           | 756,734                            |
| July 7, 1953       | 2,009,641           | 857,073                            |

## Accounting

### AAR "Accounting Rules" Due Out by Mid-August

The 1954 edition of "Railway Accounting Rules," published by the Association of American Railroads, is expected to be available for distribution in mid-August, Division Secretary R. E. Keefer has announced.

Superseding the September 1, 1953, issue, the new edition will include new or amended rules and forms effective September 1. One copy will be furnished without charge to each member railway accounting officer, Mr. Keefer said.

Additional copies may be obtained by member roads and their employees for \$1 each; price to non-member roads and others is \$2 a copy. Orders should be placed with Mr. Keefer, Transportation building, Washington 6, D.C. Remittances should be made payable to the AAR.

## Competitive Transport

### Foreign-Trade Ship Line Can Keep Domestic Rights

The United States Supreme Court has affirmed lower-court rulings which upheld an Interstate Commerce Commission decision authorizing the Isbrandtsen Company to perform eastbound intercoastal services with ships operating on foreign-trade routes.

The commission's decision was calculated to augment water carrier service between Pacific and Atlantic ports without authorizing additional operations in the opposite direction, where the service was adequate (*Railway Age*, October 19, 1953, page 16).

### ICC Denies Reduced Tin Rates By Canal

In a case decided July 6, Division 2 of the Interstate Commerce Commission has held that existing rates for shipment of tin or terne plate, iron or steel sheet and tin-mill black plate westward via the Panama Canal should be maintained. Proposed reduced rate schedules were ordered canceled.

Rail-carrier protestants argued that shippers supporting the rate cuts "are beneficiaries of a rate war at the expense of the respective rail and water

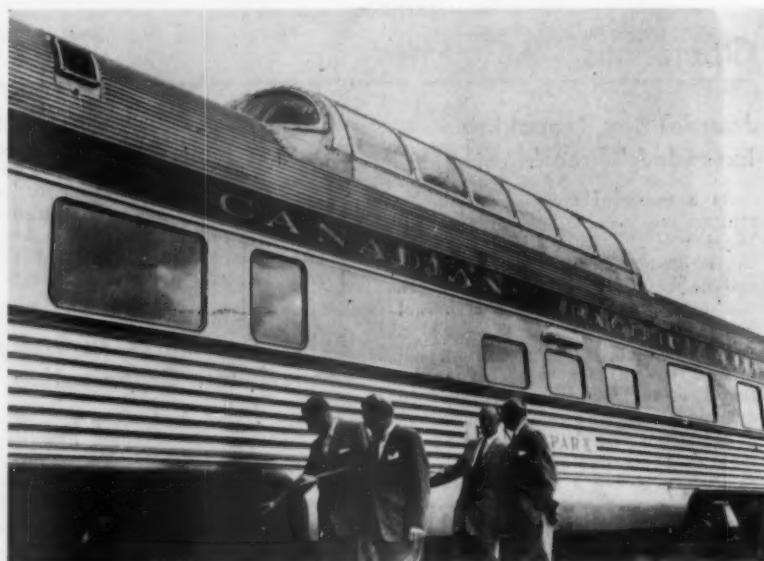
carriers' revenues" and that "market competition rather than transportation competition is the basis for the rate proposed."

Division 2 ruled the proposed rate was "not shown to be just and reasonable," as a corresponding rail rate reduction from the east to west coast "could be anticipated" to maintain a rate relationship authorized in a previous decision.

### 26 Roads Bring Suit to Halt Truck Line Sale

A group of 26 eastern and western railroads have begun suit in United States District Court in St. Louis, to set aside an Interstate Commerce Commission order which authorized C. & R. Trans., Inc., to purchase the Keshin trucking companies from trustees in bankruptcy, who have been managing the Keshin properties since 1946. The suit also names the trustees, the owner of C. & R. Trans.—John Ruan of Des Moines—the Fruehauf Trailer Company, and the ICC.

The suit was brought July 15. The commission's order, entered after a hearing in Washington last April, would have become effective July 20. The railroads contend that the order violates Section 5 of the Interstate Commerce Act, because the Fruehauf Company was not a party to the proceeding in which the order was made.



**CANADA'S FIRST DOME CAR**—included in an order for 173 passenger-train cars being built for the Canadian Pacific by the Budd Company—is inspected by N. R. Crump, CPR executive vice-president, at Budd's Red Lion plant near Philadelphia. With Mr. Crump, who is front right, are Edward G. Budd, Jr., Budd president, front left, and E. R. Schmidt and H. A.

Coward, Budd vice-presidents, left and right rear, respectively. This particular car, the "Banff Park," includes a 13-seat observation lounge, 24-seat dome, three double bedrooms, one drawing room, and a 12-passenger beverage room.

After being exhibited across Canada, it will go into CPR transcontinental service.

They allege that the trailer manufacturer, to finance the transaction, is contributing cash and credit in excess of \$2.4 million—about 90% of the amount required—and has been “the most active promoter of the matter.”

Fruehauf filed an application asking the commission to approve the sale, and then filed a petition to be dismissed as a party. The commission granted the latter request—an action, the railroads’ suit says, which makes the commission’s order approving the sale void, because the transaction could be lawfully approved by the commission only if all interested persons were parties of record. The roads point out that such procedure would “permit unrevealed persons to acquire control of one trucking company after another, thereby building monopoly in violation of law.”

**Manufacturer Control**—The roads also allege that Fruehauf owns or controls 60% of the capital stock of Detroit & Cleveland Navigation Co.; and that this company, in turn, owns 37% of the stock of Denver-Chicago Trucking Company, so that Fruehauf has “virtual control” over Denver-Chicago, which is among the largest interstate motor carriers in the country, with routes from coast to coast. The railroads state that the sale would allow Fruehauf to control the Keeshin lines, as well as Denver-Chicago. There was no evidence before the commission, they say, to show that this would be consistent with public interest.

[As this issue went to press, Federal Judge Walter LaBuy approved the reorganization plan which puts C. & R. Trans., Inc., in control of the bankrupt Keeshin Freight Lines—including nearly 16,000 miles of rights in 16 states. A C&R spokesman said extensive modernization plans are being implemented despite the impending rail carrier suit.]

## Extend Time to Tell ICC About Contract Truckers

Interested parties now have until August 2 to advise the Interstate Commerce Commission whether it should recommend to Congress changes in provisions of the Interstate Commerce Act which relate to contract trucking. Previous deadline for submission of such views was July 15 (*Railway Age*, June 28, page 10, and May 17, page 10).

## Briefly . . .

... A low-priced “continental breakfast”—orange juice, sweet roll and coffee—is now being served in a special diner-lounge car on the Pennsylvania’s 8 a.m. (DST) “clocker” from Philadelphia to New York. The train continues to carry a regular dining car providing full breakfast service.

## People in the News

### Hobart Resigns After Year In Labor Department Post

The resignation of Assistant Secretary of Labor Harrison C. Hobart, only organized labor representative among the three assistant secretaries, was announced July 15.

Mr. Hobart, who said he had no disagreements with Labor Secretary James P. Mitchell, will return to his old post of assistant grand chief engineer, Brotherhood of Locomotive Engineers, with jurisdiction west and southwest of St. Louis.

President Eisenhower, accepting the resignation, said he did so “with great reluctance.” Mr. Hobart was appointed July 13, 1953.

### A. E. Stoddard Heads U.S. Chamber’s Transport Group

Appointment of the 43-member Transportation and Communication Committee of the U.S. Chamber of Commerce for 1954-55, with Arthur E. Stoddard, Union Pacific president, as chairman, has been announced. The committee, first meeting of which will be held in Washington, D.C., September 15-16, is composed of executives of rail, highway, water and air carriers; eleven shippers; three communication officials; and representatives of the pipeline, freight forwarders, warehouse, local transit and general business fields.

Members of the railroad section of the committee, in addition to Mr. Stoddard, are all presidents of their respective companies and include Harry A. DeButts, Southern; H. E. Simpson, Baltimore & Ohio; F. B. Whitman, Western Pacific; and A. L. Hammell, Railway Express Agency.

### B. N. Behling to Join Staff of AAR’s BRE

Dr. Burton N. Behling will join the staff of the Bureau of Railway Economics of the Association of American Railroads on August 1 as an economist.

Now a senior transportation specialist with the Legislative Reference Service of the Library of Congress, Dr. Behling has served as an economist with several government agencies since coming to Washington in 1939 from the University of Illinois, where he taught economics for seven years.

Dr. Behling was on the Interstate Commerce Commission’s staff from 1939 to 1941. From 1941 to 1944, he was with the Transportation Board of Investigation and Research, which was created by the Transportation Act of 1940, serving as director of the board’s studies of public aids to transport.

Subsequently, Dr. Behling was with the Federal Power Commission and National Security Resources Board. He has been with the Library of Congress since 1949.

Born in 1906 at Oshkosh, Wis., Dr. Behling was graduated from Lawrence College in 1928. He received his master’s and doctor’s degrees from the University of Illinois.

### John C. Allen Resigns From Post Office Dept.

John C. Allen, assistant Postmaster General, has resigned that post effective August 1. Mr. Allen is returning to Sears, Roebuck & Co., where he was general traffic manager until he joined the Post Office Department. Mr. Allen’s belief that railroads can improve their mail transportation service and simultaneously make the operation more economical was outlined in *Railway Age*, October 26, 1953, pages 15-16.

## In Congress

### Hearings End On Retirement, Unemployment

The Senate Committee on Labor and Public Welfare concluded its hearings last week on proposed amendments to the Railroad Retirement and Unemployment Insurance Acts, after hearing railroad spokesmen attack them as “shortsighted, unwise legislation.”

J. Carter Fort, vice-president and general counsel of the Association of American Railroads, said “I do not think a bill could have less justification than the one now before you.” Mr. Fort added that the proposed amendments would cost the railroad industry an estimated \$53 million a year.

Others who spoke against the legislation were Robert L. Ettinger, Jr., assistant vice-president of the AAR’s Finance, Accounting, Taxation and Valuation Department; Graham E. Getty, assistant vice-president and assistant director of the AAR’s Bureau of Railway Economics; and Frank C. Squire, of the Railroad Retirement Board.

### Ex Parte 192 and MC-47 Hearings September 21

The Interstate Commerce Commission has assigned September 21 as the date for consolidated hearings on Ex Parte 192 and Ex Parte MC-47.

Ex Parte 192 would require filing of Section 22 quotations—rates accorded the government and other eligible parties under Section 22 of the Interstate Commerce Act—30 days before their effective dates, and MC-47

is a rule-making proceeding to determine whether contract motor carriers should be granted relief from ICC rules governing filing of minimum charges for transportation under contracts with the federal government (*Railway Age*, March 29, page 28, and April 5, page 15).

The ICC has ordered a broadening of the issue in M-C47 to determine the extent to which contract truckers should be granted relief from certain L.C. Act provisions which refer to filing schedules of minimum charges and contracts "insofar as these matters relate to transportation performed under contract with the U.S. government."

Meanwhile, S. 906, which would preclude government's filing of complaints assailing as unreasonable any rates granted by carriers to government agencies pursuant to Section 22, was passed by the Senate. Before passage, the bill was amended on the floor of the Senate to give the government the right to have a contract reexamined and renegotiated within two years from the date of the contract, "during a national emergency declared by Congress."

## Rates & Fares

### CPR, CNR Offer Reduced Round-Trip Coach Fares

New bargain round-trip coach fares are being offered by the Canadian Pacific and Canadian National between specific points in eastern, western and central Canada. Under the plan, round-trip tickets, reduced to one and one-tenth the cost of regular one-way fares, will be honored going on Tuesdays or Wednesdays and returning within a 7-day period in eastern Canada and a 10-day period in western Canada, not including day of departure. The fares were first applied to travel on July 13 and 14 and will be available on specified dates each month until the end of October.

### NC&StL Trial Round-Trip Reductions "Encouraging"

A considerable increase in patronage of Nashville, Chattanooga & St. Louis passenger service between Nashville and Memphis has occurred since June 1, when round-trip coach fares were reduced to a level identical with bus fares between the two points.

In view of the general decrease in passenger traffic around the country, results of the experiment so far are "encouraging," according to W. K. Tate, vice-president—traffic. The trial round-trip fares provide a 15-day limit in addition to date of sale and produce

revenues of 1.82 cents a mile, a reduction of 26% compared with regular six-month-limit round-trip coach fares.

The fare experiment carries an expiration date of December 31, 1954. Because population density served by the route is small, and volume over the line is low, the road has felt it unwise to spend large sums in advertising the experiment. The railroad's ticket agents at Nashville and Memphis say they have had numerous inquiries regarding train departure times—which indicates that the reductions are attracting patrons who have not been using local railroad service for some years.

### NYS&W Asks 20% Fare Increase

Faced with an average yearly loss on passenger service of \$600,000 for the past three years, the New York, Susquehanna & Western "has been compelled" to file with the Interstate Commerce Commission tariffs to increase its commuter fares by approximately 20%, effective August 1.

There will be no change in single or round-trip fares at this time, or for the single bus fare between Susquehanna Transfer, N.J., and Times Square, New York, but the present round-trip bus fare will be increased from 25 to 30 cents.

"In February 1952, the Susquehanna was the only New Jersey railroad which did not ask for or receive an increase in passenger fares," Henry K. Norton, president, pointed out. "It was our hope that our \$2,000,000 investment in new passenger equipment [16 all-stainless-steel, 133-passenger coaches] and better service would result in greater patronage and thereby make a fare increase unnecessary. While our investment has resulted in more satisfied customers, the increase

in passenger revenue has not matched increased costs. . . . Last year alone, passenger service losses totaled \$657,000. . . . While the new rates will not completely eliminate, they will reduce, Susquehanna's yearly passenger service losses."

## Education

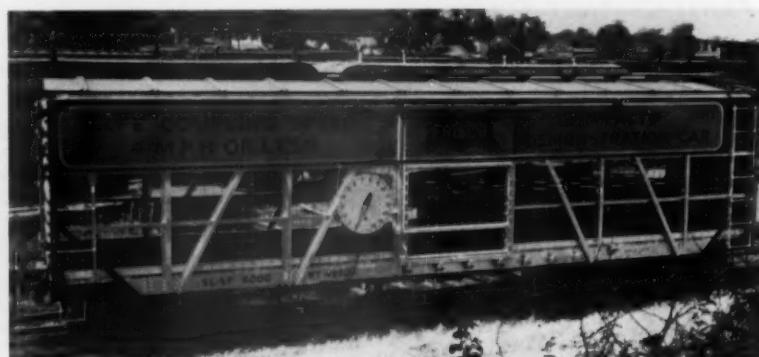
### 150 C&IM Supervisors Complete Training Course

Over 150 Chicago & Illinois Midland management representatives and supervisors have completed a course of instruction in "Human Relations in Supervision," conducted by Professor John F. Humes of the extension division of the University of Illinois. The first group completed its training and received certificates last January, the second group in June. Each of the two groups attended two-hour weekly sessions over 16 weeks.

### 31 Santa Fe Officers Taking Economics Seminar

A group of 31 Santa Fe "middle management" officers are now at the University of Southern California taking an intensive six-week seminar known as the "Institute of Business Economics." The men come from 14 different locations and vary widely in titles and backgrounds.

Purpose of the institute, according to Dean Lawrence C. Lockley of the university's school of commerce, is to put before these men "the historical background, the current data, and the analytic tools with which they can



THE PUBLIC MAY WATCH the Frisco's new impact demonstration car go through its paces. While shippers, employees and civic officials are invited to attend at each city where the car is shown, the general public is also welcome. The idea is to "illustrate . . . how the Frisco con-

cerns itself with the best possible handling of shipments entrusted to it," according to E. P. Olson, assistant to vice-president. Converted from a 40-ft box car, and equipped with a lading of 24 water-filled steel drums strapped into a solid 12,000-lb load, the car is touring the Frisco system.

achieve their own philosophical points of view, and a degree of independence of thought and business statesmanship."

Panel discussions, presented by a faculty of six professors, make up many of the daily lecture sessions. The railway men also will receive training in public speaking and conference leadership.

## Law & Regulation

### Complaint Dismissed

A 1950 complaint alleging that the Southern Pacific was then failing to provide adequate car service in western Oregon has been dismissed by the Interstate Commerce Commission.

The commission found that the road had not failed to furnish adequate car service within the limits of its capacity, and that it had not subjected the complainants to undue prejudice. The case was docketed as No. 30708.

### Union Pacific T-O-F-C Gets Tentative Approval

The Union Pacific's trailer-on-flat-car operation in Utah, Idaho, Oregon and Washington will be allowed to continue while an investigation of rates and regulations is instituted, under a ruling handed down by Division 2 of the Interstate Commerce Commission on July 14. Date for a hearing in the investigation will be announced later.

In addition, the commission's Division 2 has declined to suspend tariffs proposed by the Chicago & North Western for its piggyback operations.

## Labor & Wages

### BofLE Head Hits Labor Prophets of Depression

Labor-leader prophets of depression who "are not now just as readily mentioning several signs of the business upturn" were criticized in Washington, D. C., last week by Guy L. Brown, head of the Brotherhood of Locomotive Engineers.

Mr. Brown, in the nation's capital for a talk with President Eisenhower, praised the administration's legislative program and told reporters he had been called "all kinds of a fool" by some of his colleagues for predicting success for the President's program in Congress. He said he mentioned to the President that "furloughed railroad workers were being

called back to their jobs in some parts of the midwest and east."

## Organizations

The next meeting of the **New England Shippers Advisory Board** will be held at Poland Spring, Me., September 13-14. The 1955 spring meeting will be held at the new Statler Hotel, Hartford, Conn., March 10-11.

Evan W. Girton, general traffic manager of Wilson & Co., has been elected president of the **Traffic Club of Chicago**. Vice-presidents are G. R. Glover, assistant to vice-president, Burlington, C. R. Purcell, and C. H. Groninger, freight traffic manager, Baltimore & Ohio. Walter N. Saaby, director of traffic, Victor Chemical Works, becomes secretary, while R. P. DeGroote, general western freight agent, Luckenbach Steamship Company, has been elected treasurer.

The **Clearing-Cicero Traffic Conference** (Chicago) has elected the following officers: President — Larry Hines, Pan American Airways; vice-president — John C. Kocian, Pennsylvania; secretary — Joseph B. O'Leary, Consolidated Forwarding Company; financial secretary — Elmer K. Thielsen, Thor Corporation; and treasurer — J. W. Johnson, Sunbeam Corporation.

Oliver R. Anderson, general passenger agent of the Milwaukee, has been elected president of the **Transportation Club of Seattle**, succeeding Donald D. Heydlauff, resigned.

Roy D. Plumley, comptroller and general auditor of the Bangor & Aroostook, has been named eastern territory member of the auditing committee of the **National Perishable Freight Committee** for a three-year term.

The **Traffic Club of Detroit** has changed its headquarters from the Hotel Fort Wayne to the Hotel Statler.

Jack C. Hodges, manager of the Canadian National suggestion bureau at Montreal, was elected first vice-president of the **National Office Management Association** at its recent annual meeting in St. Louis.

W. Jerome Strout, vice-president, operations and maintenance, Bangor & Aroostook, has been elected president of the **Maine Association of Engineers**.

Mildred Schneider, Washington Terminal Company, is president of the **Washington Chapter, Railway Business Women's Association**, for the 1954-55 club year. She succeeded Helen Richardson, Bureau of Railway Economics. Other officers are: First vice-president, Laureta Curtin; second vice-

president, Lillian Zell; recording secretary, Elizabeth Profe; corresponding secretary, Elizabeth Foley; treasurer, Lucille Wiley.

Thomas P. Gorter, vice-president, Pullman-Standard Car Manufacturing Company, and Howard F. Park, Jr., vice-president, General Steel Castings Corporation, have been elected to the executive committee of the **Railway Supply Manufacturers Association**.

The **Purchasing Agents Association of Chicago**, affiliated with the National Association of Purchasing Agents, has created, in conjunction with the **Illinois Institute of Technology**, two full-time scholarships, each worth \$2,320, for the professional education of purchasing executives.

The **Chicago Railroad Diesel Club** has elected the following officers for 1954-55: President — B. H. Simons, Inland Steel Company; vice-presidents — J. C. Davis, Santa Fe, R. A. Hoeft, Milwaukee, and A. M. Sciaro, Chicago & North Western; and secretary-treasurer — E. C. Fosdick, C&NW.

The fall meeting of the **American Society of Mechanical Engineers** will be held September 8-10, at the Schroeder Hotel, Milwaukee. The railroad session, September 10, will deal with economics of equipment maintenance. Speakers will include R. R. Crane, director, and F. B. Brown, analyst, Melpar, Inc., Alexandria, Va. The meeting will be presided over by G. L. Cotter, director of engineering, Westinghouse Air Brake Company, and V. L. Green, assistant superintendent, car department, Milwaukee Road.

New officers of the **Traffic and Transportation Association of Pittsburgh** for 1954-55 are: President — Joseph F. Lauth, National Carloading Company; vice-president — Cal Combs, Jones & Laughlin Steel Co.; recording secretary — W. G. Harrison, United Engineering & Foundry; membership secretary — Edward Andrews, Kramer Bros. Freight Lines; financial secretary — Bernard Pugar, New Haven Railroad; treasurer — Richard Williams, Milwaukee Road; custodian — James Carey, Middle Atlantic Transportation Company; historian — John E. Steele, Pennsylvania Industrial Chemical Company.

All national transport trade associations are scheduled to participate in the first **Congress of American Transportation**, as the 20th anniversary meeting of the **Transportation Association of America**, to be held in Chicago next February 1-2, has been designated.

The 41st annual meeting of the **American Short Line Railroad Association** will be held in the Hotel New Yorker, New York City, October

19-20. Speakers at the meeting will include Richard F. Mitchell, chairman, Interstate Commerce Commission; Everett Edwards, of the National Mediation Board; Charles W. Taylor, acting director, Bureau of Safety and Service, ICC; and Philip A. Hollar, vice-president, Association of American Railroads.

The National Records Management Council (*Railway Age*, May 24, page 29) has established new offices at 55 New Montgomery street, San Francisco 5.

The 90th regular meeting of the Pacific Northwest Advisory Board will be held September 16-17 at the Ridpath Hotel, Spokane, Wash.

A. C. Monteith, vice-president in charge of engineering and research of Westinghouse Electric Corporation, will take office August 1 as the new president of the American Institute of Electrical Engineers.

Newly elected officers of the American Association of Baggage Traffic Managers are: President—J. A. Dorvitt, Kansas City Southern; vice-president—M. P. Nelson, Lackawanna; and secretary-treasurer—T. R. Stanton, Wabash.

## Supply Trade

Colson Corporation, Elyria, Ohio, has purchased assets of Service Caster & Truck Corp., Albion, Mich.

The T-Z Railway Equipment Company, Chicago, has appointed Walton R. Collins, 90 West street,



ROBERT S. VILLFORTH, who has been appointed field service engineer in the New York division of A. M. Byers Company. Mr. Villforth will specialize in railroad sales, with headquarters at the firm's division office, 30 Rockefeller Plaza.



ALBERT M. SCHIEBLER, district sales manager of the General Steel Castings Corporation, at Granite City, Ill., who has been appointed assistant vice president—sales.

New York 6, as exclusive eastern sales representative.

Gisholt Machine Company has announced plans for leasing machine tools, to cover standard machines, plus required electrical equipment. Three plans are available, each with or without an option to purchase.

William W. Hanly, Jr., has been elected vice-president of the Wood-Treating Chemicals Company. Mr. Hanly will continue as manager of sales to the wood-preserving industry, but in addition will supervise the company's overall promotion of the Monsanto Chemical Company's Penta.

Transport Products Corporation has purchased the patents, patterns, tools and inventory of "Parkway Outlets" and "Parkway Outlet Junction Boxes," formerly owned and manufactured by the O. O. Flath Company.

Sheffield Steel Corporation, formerly a wholly owned subsidiary of Armco Steel Corporation, was consolidated with Armco on June 30 and will be known as "Sheffield Steel, Division of Armco Steel Corporation."

The Railroad Repair & Supply Co., Chicago, has been purchased by Leo F. Duffy, former president of the Apex Railway Products Company, also of Chicago.

The Rail-Trailer Company and its subsidiary, Van-Car Corporation, have moved to new quarters in the Builders building, 228 N. LaSalle street, Chicago 1.

Miss Ruth Popkins, former traffic manager of Velsicol Corporation, division of Arvey Corporation, has been appointed traffic manager of the Rail-Trailer Company at Chicago.

Ajax Consolidated Company has appointed Fred R. Brookmeyer as

sales engineer, at Chicago. F. R. Bretz has rejoined the company as consulting engineer.

International Railway Car Company has appointed Frank E. Ross, Jr., 3408 Washington blvd., St. Louis, as district sales representative for St. Louis and Southwest territory.

The Lithcote Corporation, Chicago, has expanded its facilities for internal lining of railway tank cars "to meet the increasing demand for baked phenolic linings." The Chicago & North Western has leased to Lithcote a section of its roundhouse facilities at Proviso yard. These facilities make it possible for Lithcote simultaneously to house 20 tank cars or flat cars transporting large vessels. Various baked phenolic linings are applied to prevent either tank corrosion or product contamination. The plant is capable of turning out up to 45 cars per month.

Orton Crane & Shovel Co. has appointed Charles E. Barnes as sales representative for the San Francisco area, with offices in the Russ building.

## OBITUARY

Earl C. Givens 57, vice-president of International General Electric Company, died at Doctors Hospital, New York, on July 20, following a brief illness.

## Equipment & Supplies

### LOCOMOTIVES

#### Class I Roads Install 788 Locomotives in First Half

Class I railroads installed 788 new locomotive units in the first six months of 1954, the Association of American Railroads has announced. Of the total, 781 were diesel units and seven were gas turbine-electric locomotives. In the same 1953 period, Class I roads installed 1,296 new locomotive units, including 1,286 diesel units, and one gas turbine-electric and nine steam locomotives.

New locomotive units installed by Class I roads in June 1954 totaled 100, including 97 diesel units and three gas turbine-electric locomotives, compared with June 1953 installations of 194 locomotive units, which included 193 diesel units and one steam locomotive.

On July 1, Class I roads had on order 124 new locomotive units, including 106 diesel units, and 10 electric and eight gas turbine-electric locomotives, compared with 570 new units on order July 1, 1953, which included 536 diesel units, and six steam, 10 (Continued on page 60)

*All of  
these  
are GM  
Diesels*

*with Faith  
and Confidence  
in the future*



\$35,769,410<sup>00</sup> is being spent  
this year for 205 new diesel  
locomotives



Union Pacific demonstrates its firm belief in our nation's progress by continuing its broad program of constant improvement in freight and passenger service.

Of these 205 new diesel locomotive units, 190 will be for freight, and 15 for passenger service.

Delivery is expected to be completed by June 1, 1954, completely diesel.

izing the railroad's main line between Omaha and the Pacific Coast, for handling of through traffic. Thus, the progressive Union Pacific maintains its tradition of serving all the West with the most modern equipment. The expenditure of over thirty-five million dollars for these additional diesel locomotives will help maintain payrolls and the buying power so vital to our country's economic welfare.

\* \* \*  
*For Dependable Transportation  
Be Specific . . . say*

**UNION PACIFIC**

Reprint of  
advertisement which  
appeared in March  
Issue of Modern  
Railroads

Equipped with the world's most modern locomotive manufacturing facilities, Electro-Motive Division is geared to handle the big jobs.

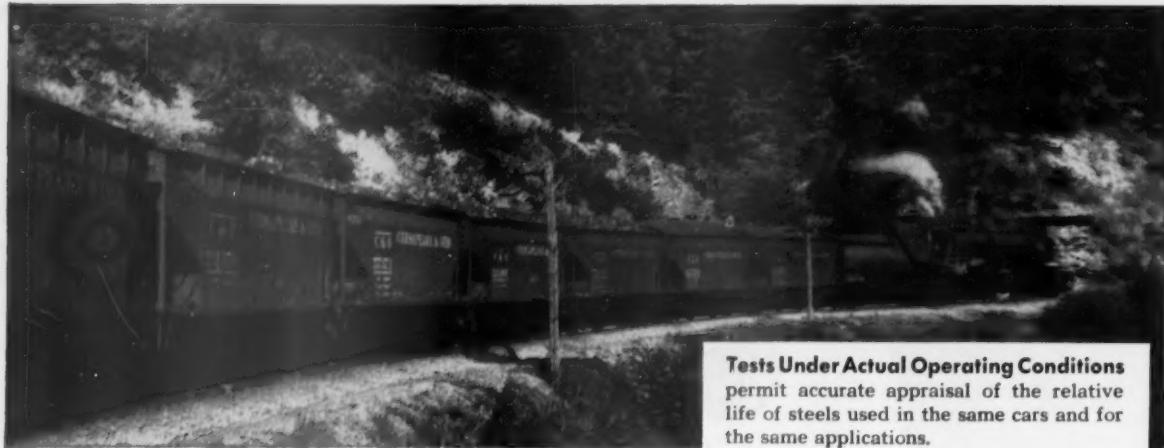
With increased horsepower, greater tractive effort, and numerous improvements in engines, traction motors and control apparatus—

**The best locomotives are even better today!**

**ELECTRO-MOTIVE DIVISION  
GENERAL MOTORS**



La Grange, Illinois • Home of the Diesel Locomotive • In Canada: GENERAL MOTORS DIESEL, LTD., London, Ontario



**Tests Under Actual Operating Conditions**  
permit accurate appraisal of the relative  
life of steels used in the same cars and for  
the same applications.

**20 year test proves  
added service life more than justifies initial cost  
of high strength low alloy steels  
containing nickel**

After intensive studies by one of the largest railroads reviewing freight car repair costs, one-third of the total expense is attributed to corrosion damage...

*The figure for hopper cars being highest... actually 64%.*

Aiming to cut this cost, The Chesapeake and Ohio Railway Company took part in an actual service test, begun in 1931, to find a metal that would extend the life of hopper cars.

And here is what they found: carbon steel slope sheets failed in 10 to 12 years, and copper steel slope sheets failed in 10 to 14 years. But slope sheets of nickel-copper steel remained good after 20 years of use and, it is estimated, will give about double the total life of carbon steel.

Thus, a high strength low alloy steel containing nickel demonstrates its superior stamina and corrosion resistance... more than justifying its moderate increase in cost.

Stretch the life of your products or structures by using steels containing nickel. They help you reduce bulk and deadweight and decrease maintenance expense.

The addition of nickel, either alone or with other elements, improves hundreds of alloys. When you have a metal problem, send us details for our suggestions on ways to increase your result/dollar ratio. Write today for your copy of "Nickel Alloys in Railroad Equipment."



**Hopper Car Life Can Be Extended . . .** by utilizing high strength low alloy steel containing nickel . . . as demonstrated by this car with slope sheets made of high strength low alloy nickel-copper steel.



**THE INTERNATIONAL NICKEL COMPANY, INC.** 67 WALL STREET  
NEW YORK 5, N. Y.

# The Bower-Franklin roller-bearing journal box makes wheel changing easy

*With the Bower-Franklin roller bearing and journal box, the complete box and bearing unit can be slipped off the axle without disturbing the inner race. No need to carry spare wheel sets with bearings and boxes already applied.*



The straight roller bearings for this freight-car journal box are made by the Bower Roller Bearing Company of Detroit. The inner race fits standard AAR freight-car roller-bearing axles. Two rows of straight rolls are positioned by sturdy retainers. The outer race is contained in a separate, ruggedly-built journal box housing. The bearing permits free lateral movement of the axle up to  $\frac{1}{2}$ -inch.

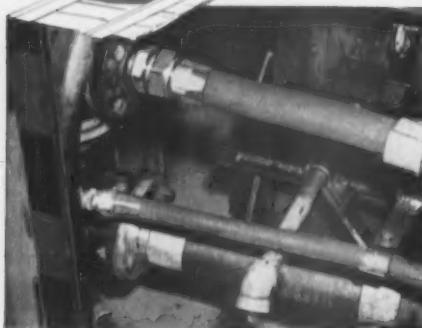
Ask us to send you the complete facts on Bower-Franklin journal boxes today.



**FRANKLIN BALMAR CORPORATION**  
WOODBERRY, BALTIMORE 11, MARYLAND  
CHICAGO OFFICE: 5001 North Wolcott Ave., Chicago 40

# AEROQUIP FLEXIBLE HOSE LINES

**Speed Maintenance on the  
Lehigh Valley Railroad**



• The Aeroquip hose lines shown here replaced rigid piping in the lube oil system on a Lehigh Valley diesel-electric locomotive.



• Lehigh Valley keeps Aeroquip bulk hose and fittings on hand so that hose lines can be made as they are needed to replace rigid tubing failures.

The Lehigh Valley, one of America's most progressive railroads, was among the first to see the cost-cutting, time-saving advantages of using Aeroquip hose lines with detachable, reusable fittings for installation on diesel locomotives. They recognize the value of quick, easy fluid line installation with no effect from vibration or extreme heat.

Lehigh Valley replaces all rigid tubing on fuel, lube oil, and air lines with Aeroquip flexible hose lines assembled right in their own repair shop. Sizes used range from  $\frac{1}{4}$ " to 4". You, too, can simplify maintenance the "Aeroquip way." Write for complete information.



90° Elbow Fittings



Male Pipe Fittings



Straight Flange Fittings

 **Aeroquip**  
REG. TRADE MARK

**AEROQUIP CORPORATION, JACKSON, MICHIGAN**

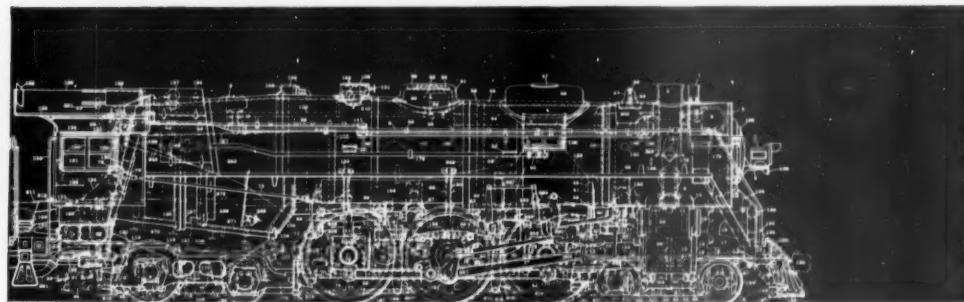
SALES OFFICES: Burbank, Calif. • Dayton, Ohio • Hagerstown, Md. • High Point, N.C. • Miami Springs, Fla., Minneapolis, Minn. • Portland, Ore. • Van Wert, Ohio • Wichita, Kan. • IN CANADA: Preco Progress and Engineering Corporation Ltd., Toronto • IN ENGLAND: Super Oil Seals & Gaskets, Ltd., Birmingham

AEROQUIP PRODUCTS ARE FULLY PROTECTED BY PATENTS IN U.S.A. AND ABROAD

# 350

ways to spend money

... in maintaining your present steam motive power



That same money will  
earn money invested in Diesels  
earn more invested in Train Masters



## TRAIN MASTER

Leader in today's trend toward more powerful . . . more efficient  
Diesel Motive Power.

Fairbanks, Morse & Co., 600 S. Michigan Ave., Chicago 5, Ill.



## FAIRBANKS-MORSE

*a name worth remembering when you want the best*

DIESEL LOCOMOTIVES AND ENGINES • RAIL CARS AND RAILROAD EQUIPMENT • ELECTRICAL  
MACHINERY • PUMPS • SCALES • WATER SERVICE EQUIPMENT • HAMMER MILLS • MAGNETOS

CHAPTER 1



## Don't let old equipment drive off customers!

When the age of equipment begins to affect service, dependability or rates, shippers naturally look for a better buy!

As a result, old equipment is a constant invitation to competitive services...a constant threat to your best accounts.

Old equipment just can't keep pace today...in the most competitive market the railroads have ever faced!

CHAPTER 2

## Use new equipment as a sales tool!

Dozens of Railroads have proved that new equipment earns more money...clear evidence of the strong influence it has on shippers!

New equipment makes your selling job easier by giving shippers what they want most...better, faster and more modern service.

Combining this equipment with an aggressive personal selling program is the only sure way to beat competition.



# How to win Friends and INFLUENCE SHIPPERS!

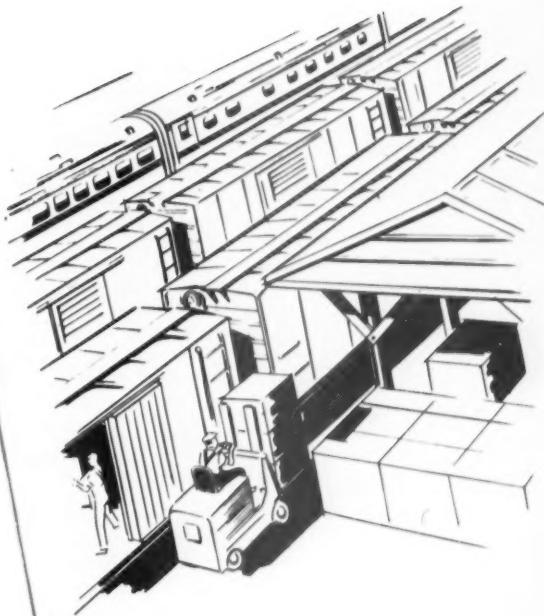
CHAPTER 3

## What's in a name?

Plenty...if it's yours! Ever stop to think of how the appearance and condition of your equipment look to your customers, prospects, and the general public?

That impression will make a lot of difference to your railroad's reputation...your most valuable possession.

We invite your thorough investigation of all aspects of a new equipment deal...it may give your Railroad new opportunities. **ACF** Industries, Incorporated - New York. Chicago • St. Louis • Philadelphia • Washington • Cleveland • San Francisco.



# acf

CAR BUILDERS TO AMERICA'S RAILROADS



*Photo courtesy: The Budd Company*

## The battery railroads can depend on!

Consistent selection of EDISON batteries to furnish standby power for modern, air-conditioned passenger car service is based on years of extensive railroad operating experience.

The reasons why so many roads today rely on this unusual battery may be summed up in one statement: most dependable power... at the lowest over-all cost. But behind this statement lies the profitable operating features that are exclusively EDISON.

Steel cell construction with-

stands rugged handling like no other kind of battery construction can. Electrically, EDISON batteries recover after discharge as rapidly as generator output permits—providing high road capacity, and virtually eliminating yard charging. And as for service life, roads using as many as 2000 sets of EDISON batteries in both air-conditioned and non air-con-

ditioned cars report average service life ranging from eighteen to twenty-six years.

Find out now about EDISON's exclusive advantages by sending for our bulletin 3802 and requesting a visit from the EDISON Field Engineer nearest you. Write Edison Storage Battery Division, Thomas A. Edison, Incorporated, West Orange, New Jersey.

**Most dependable power...  
lowest over-all cost  
you get both with an EDISON**



**EDISON**  
*Nickel • Iron • Alkaline*  
**STORAGE BATTERIES**

EDISON ALSO MAKES THE FAMOUS "V.P." VOICEWRITER AND THE TELEVOICE SYSTEM

Leading the Way—Regardless!

By Hungerford



We will be glad to send you enlarged copies of this Hungerford cartoon (without advertising copy) for posting on your office and shop bulletin boards, or a cut for your company magazine, at cost.

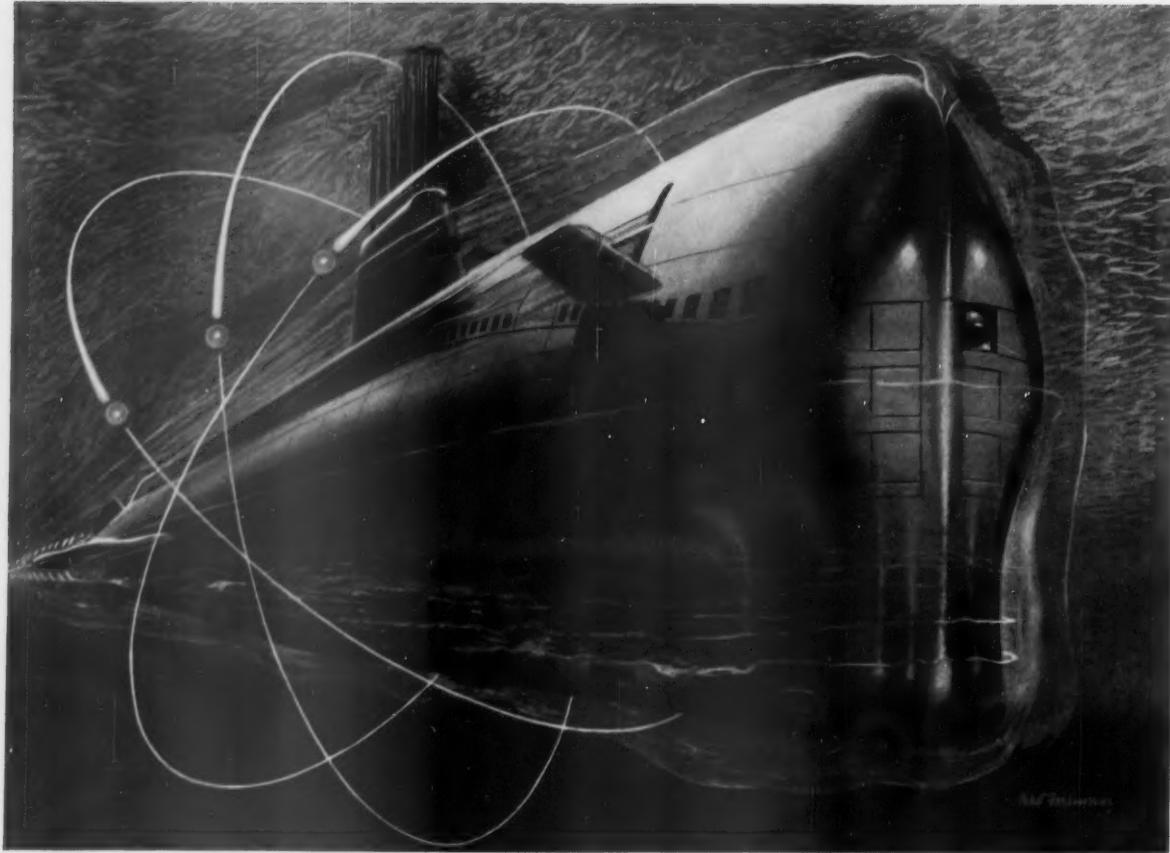
**E** Edgewater  
Steel Company

PITTSBURGH, PA.

*Serving America's Railroads*

ROLLED STEEL TIRES  
with  
ROLLED STEEL WHEELS  
AND DRAFT GEARS





## ATOMIC SUB BUILDERS

Rely on World's Greatest Lubrication Knowledge  
and Engineering Service

AFTER 54 years of building over 300 "conventional" submarines for the U. S. Navy and our allies, Electric Boat Division, General Dynamics Corp., marks its entry into the atomic age with the launching of the "Nautilus"—world's first atomic powered submarine.

Electric Boat, with its sprawling foundries and shops along the Thames River at Groton, Conn., is really many industries in one. It casts its own metals—both ferrous and non-ferrous. It shapes and machines metal parts—from thick armor plate to parts with microscopic tolerances. It has 27

overhead cranes, marine railway and land railroads, a fleet of trucks, low- and high-pressure compressors, its own Diesel power plant.

This wide variety of costly machinery represents almost every lubrication condition found in modern industry. That is why Electric Boat relies 100% on Gargoyle lubricants and a program of Correct Lubrication—has done so for 34 years.

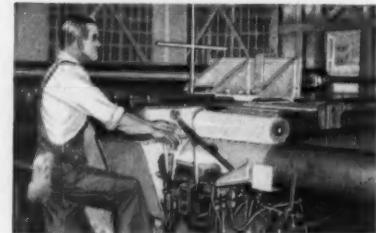
★ ★ ★  
You can give your plant, mine or mill this same unsurpassed protection. Just call your Socony-Vacuum representative.

**SOCONY-VACUUM** *Correct Lubrication*  
**FIRST STEP IN CUTTING COSTS**

SOCONY-VACUUM OIL CO., INC., and Affiliates: MAGNOLIA PETROLEUM CO., GENERAL PETROLEUM CORP.



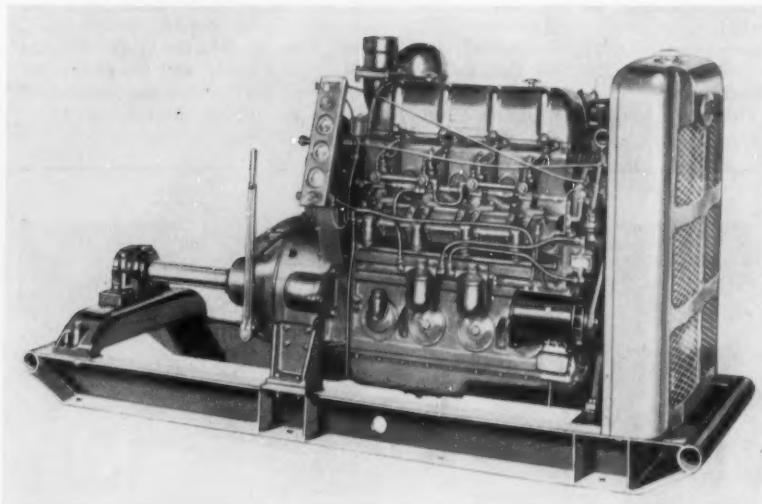
A snorkel intake tube being machined to very precise tolerances on one of the large lathes in the Groton plant.



Hydraulic bender shapes section of 8-in. steel pipe in two minutes. This operation formerly took a full day.



## What's New in Products



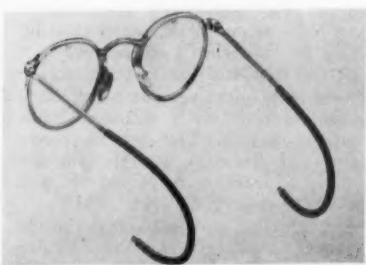
### **Lightweight Diesel Engine Line**

The Henschel Corporation is producing in volume a complete line of improved two-cycle diesels with 2, 3, 4 or 6 cylinders in horsepower ranges from 58 to 255 (maximum ratings), or 35 to 190 hp (continuous ratings). Blocks and ends of aluminum alloy contribute to a weight-to-horsepower ratio as low as 7.06 lb per hp.

It is reported that a complete-cylinder head and liner assembly can be

replaced in about 30 minutes without dropping the oil pan or moving the engine from its mounting. A complete change of power assemblies can thus be made overnight on any size engine. Cooling capacity of the new C-18 line has been increased over former models through enlargement of water passages and addition of new channels in vital areas.

Operating speed has been increased to 1,800 rpm. Bore and stroke are  $4\frac{1}{2}$  by  $5\frac{1}{2}$  in. •



### **Safety Spectacles**

New metal-framed safety spectacles, called "Saf-I-Spectacle," designed to provide maximum comfort, recently were introduced by the United States Safety Service Company, 1215 McGee street, Kansas City, Mo. This lightweight spectacle with non-corrosive, nickel silver frame has soft polythene nose pads that are said to mold to nose contours and distribute weight without pressing or gouging. "Saf-I-Spectacle" can be furnished with per-

forated, non-corrosive metal side shields for safety on jobs requiring front and side protection. •



### **Tie Remover Improved**

The Simplex Tie Remover No. 80A has been modified to permit hooks to be attached under the rail, instead of on top. Templeton, Kenly & Co.,

Broadview, Ill., manufacturer of the device, states that the improvement permits a more direct push on the tie during removal operations.

The No. 80A is essentially a ratchet-lever jacking mechanism with a long toothed rack bar which pushes the tie from under the rail. Length of travel of the rack bar is 86 in., and this improved model is designed so that the rack bar will remain horizontal instead of tending to rise. The device is equipped with a roller at the end of the rack bar for easy movement along the top of rails. The manufacturer claims that the tie remover is considerably faster than pick and tong methods and can be used with a greater degree of safety since there is no danger of men being struck with tools. It is also reported that only one-fourth as much ballast must be removed to use the tie remover successfully as for ordinary hand methods. •



### **Portable 2,000-Watt Power Plant**

A hand-portable, engine-driven electric generator plant (Model B-2000) is being offered by the Lynn Engineering & Supply Co., San Francisco. The unit will provide both electrical and mechanical power (for belt-driven equipment) simultaneously without removing either the generator or the engine from the steel base. This is accomplished by attaching a sheave and V-belt to the extended engine crankshaft. The small diameter alternator is tucked under the engine gas tank and fastened rigidly to the engine crankcase with studs.

The unit has a maximum output of 2,500 watts. The continuous rating is 2,000 watts, 115 volts, single phase, 60 cycles. The overall dimensions are 17 in. by 23 in. by 19½ in. high; weight approximately 145 lb. Power is supplied by a 5-hp Briggs & Stratton, 4-cycle, air-cooled engine, operating at 3,000 rpm. The generator is driven at 3,600 rpm by steel-cable cog-type V-belt. Bearings are sealed for lifetime

## More New Products

operation. The engine-generator assembly is mounted on rubber vibration insulators •



**Outdoor Lighting Unit**

A lighting unit for building exteriors and outdoor areas designated as No. 415 has been introduced by the Holophane Company, 342 Madison ave., New York.

The metal parts are die-cast aluminum with a lacquered finish. The use of these die-cast parts assures precision of size and detail. The enclosing glass is a double-thick prismatic refractor. It is composed of hundreds of glass prisms built to optical standards to direct the light downward and outward for wide coverage and to produce a uniformly lighted appearance free from dazzle and dark bands.

The hood is constructed to exclude dust and rust and to withstand all weather conditions. For relamping, the door screws are loosened, and the glass assembly swings open on a concealed hinge •



**Gasoline-Powered Reciprocating Saw**

A lightweight, 18-in., gasoline-engine-powered reciprocating saw, which eliminates kicking and grabbing, has been announced by the Wright Power Saw & Tool Corp., Stratford, Conn. The

new saw, which cuts a kerf of only 3/16 in., was developed employing the reciprocating principle of the Wright Precision (pneumatic) Power Saw, and weighs less than 25 lb. The fully guarded saw blade is directly connected to the twin-cylinder, single-firing engine which is equipped with a float-type, wick-feed carburetor permitting operation of the saw in all positions, including upside down. Fuel capacity is 1½ quarts and speeds up to 160 strokes per second may be attained.

The saw, which can be used for

crosscutting, ripping, felling, trimming and notching—leaving a mill surface on the wood—is equipped with a trigger-type throttle incorporating an automatic shut-off safety provision. Should the operator stumble or fall and drop the saw, the engine immediately stops as the ignition system is grounded by release of the trigger. Blade sharpening can be done by hand in a few minutes. Teeth require no resetting. Total time required for blade changing is only 30 seconds, and the entire saw may be disassembled and assembled without the use of special tools •



**Four-in-One Tractor Attachment**

A new hydraulically controlled attachment for its TD-6 crawler tractor has been announced by the International Harvester Company, Chicago. The unit, known as the "Four-in-One," is produced by the Drott Manufacturing Company, Milwaukee, Wis., and is said to be capable of handling a multiplicity of earth-moving jobs. The new unit, available through International Industrial Power distributors, can be converted into a bulldozer shovel, a bulldozer, a front-end loader or a clamshell by placing a shovel-selector lever in the desired position. The lever is within easy reach of the operator, and shovel selection can be made when the tractor is in motion or standing still.

As a bulldozer shovel, the attachment can be used for sanitary landfill operations and to transport dirt on short hauls. With the clam open, the shovel becomes a bulldozer. Depth of cut is regulated by the forward and back-

ward pitch of the blade, rather than by lifting and lowering push beams.

In the front-end loader position, the "Four-in-One" has the same roll back at ground level as a standard Drott front-end loader. The bottom dump feature of the unit in this position gives it a clearance in excess of 14 ft above the ground.

For picking up loose material in confined operating areas, the operator can place the shovel-selector in the clamshell position. When loading and transporting, the bucket may be rolled back and semi-skidded on the ground as in front-end loader operations.

In addition to the four shovel features, the unit may also be used as a backhoe. Overall width of the attachment is 68 in. and height is 40 in. Shovel capacity is 7/8 cu yd with a lifting capacity of 3,000 lb, and breakout force is 8,500 lb. Overall weight of the "Four-in-One" and the International TD-6 crawler tractor is less than 9,000 lb •

# QUICKEST



# EASIEST

## Dismantling, Servicing and Assembling . . . .

Snap your fingers at the high cost of dismantling . . . if they're Barber Stabilized Trucks. It takes two men 15 minutes to raise the bolster from the springs, which instantly releases the Stabilizer parts for removal. No bars, or prying needed. No additional helpers. No costly labor operation.

Skillful design is immediately evident. The Barber Truck is astonishingly simple in principle, yet it is highly effective in smoothing out a freight car ride. Its parts are sturdy; its performance long and satisfactory. The Barber Truck . . . first to introduce *built-in* stabilizers . . . does its intended job well, with the fewest possible parts. Standard Car Truck Company, 332 S. Michigan Ave., Chicago 4, Illinois.

**5 BILLION MILES PER YEAR**

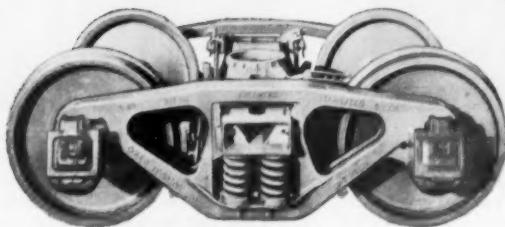
of smooth, trouble-free serv-  
ice provided by . . .

**350,000 CAR SETS**

of Barber Stabilized Trucks  
now in operation with . . .

**OVER 100 MAJOR RAILROADS**

and private car lines.

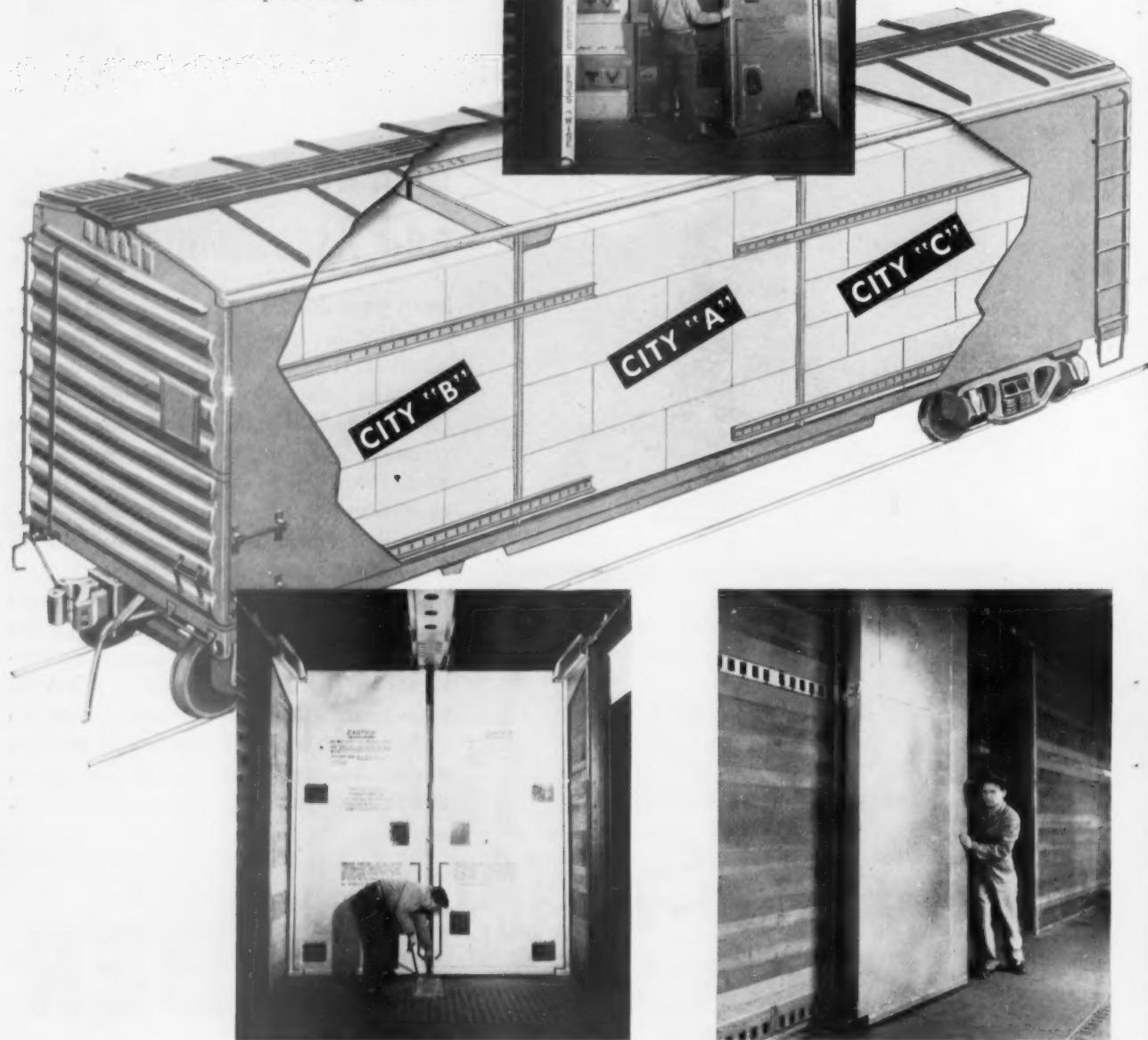


*Specify*

**BARBER**  
**STABILIZED TRUCKS**

# P-S Compartmentizer

The P-S Compartmentizer lets many shippers load cars to the roof. For all kinds of shipments—car loads, LCL, or stop off. Below: Shipments to two or more stops enroute are easy for the P-S Compartmentizer. Shipments are segregated, chance of error, mix-up or damage reduced.



Two pairs of rugged steel gates close tight against the load, and each pair securely locks at 8 points. Locking and holding are positive. Gates can be locked in any position from door post to bolster at 3-inch intervals.

Each gate is independently suspended from an overhead track running full length of the car. One man can easily move it into position snug against the load, for 4-position locking against ceiling walls and floor.

# protects lading speeds handling

With such products as the Box Car Compartmentizer, Pullman-Standard has aligned itself with the nation's railroads and shippers in the fight against lading damage.

As the railroads strive to serve the shipper better and faster, Pullman-Standard engineers continue to offer strong support by developing box car damage prevention accessories that speed handling, reduce loss ratios. For example. Records prove the Pullman-Standard Box Car Compartmentizer allows cars to be loaded more efficiently, unloaded rapidly, even at two or more stops enroute. Consignee need not level off the load. Dunnage

is completely eliminated. Compartments prevent load mix-up, displacement, impact damage and crushing. Experience is enabling Pullman-Standard to constantly add further features to such equipment as the P-S Box Car Compartmentizer.

Other Pullman-Standard contributions to the battle against damage are the impact-neutralizing Cushion Underframe and the full length Lading Strap Anchor.

Write for booklets describing the P-S Compartmentizer, P-S Cushion Underframe, P-S full length Lading Strap Anchor.

YOUR NEEDS CREATE THE PULLMAN "STANDARD"

# PULLMAN-STANDARD

CAR MANUFACTURING COMPANY

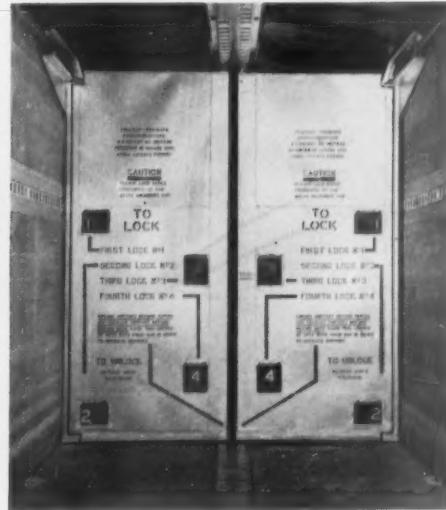
SUBSIDIARY OF PULLMAN INCORPORATED

79 EAST ADAMS STREET, CHICAGO 3, ILLINOIS

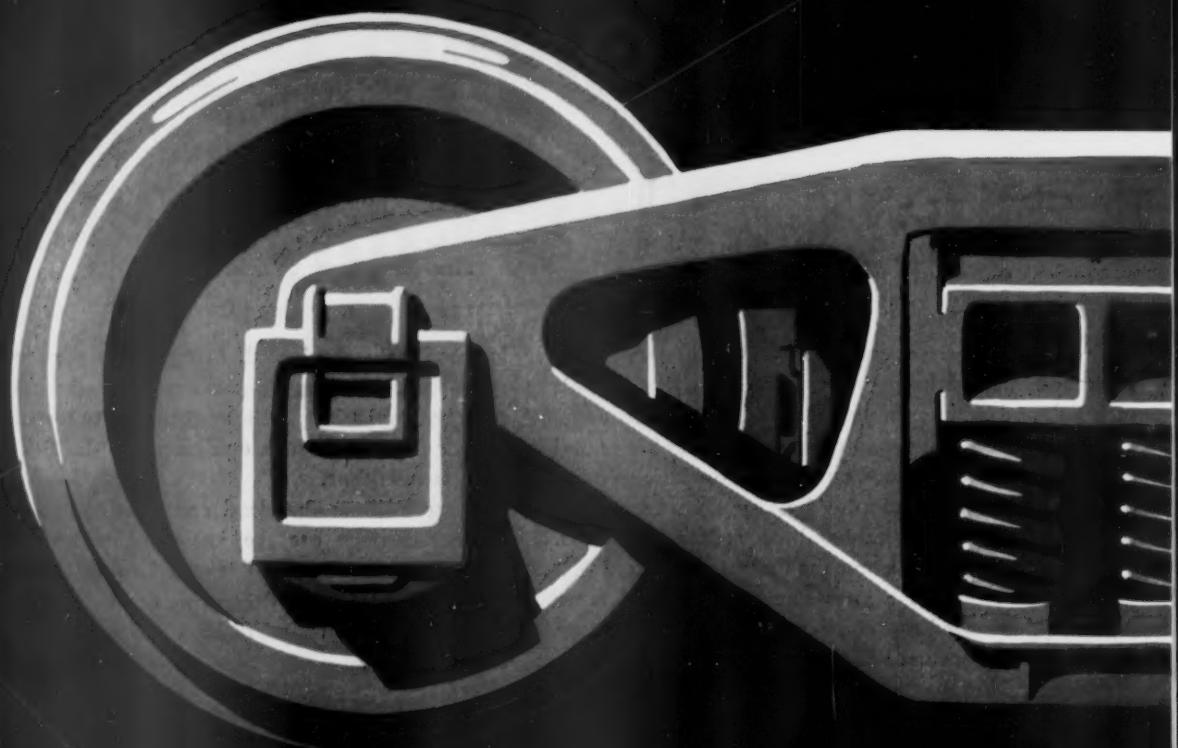
BIRMINGHAM, PITTSBURGH, NEW YORK, SAN FRANCISCO, WASHINGTON



Damage is minimized when P-S Compartmentizer gates are secured. With gates closed against the load, the car is divided into three compartments. Any movement of the lading in one section cannot affect the contents of the other two.



Crated or cased goods, including sacked goods, packaged cereals, bottled goods, household appliances, glassware and medical supplies are only a few of the items that are traveling safely in the P-S Compartmentized Box Car.



**A.A.R. APPROVED**

# *Freight Car Trucks*

proved  
by millions  
of service miles

**SCULLIN STEEL CO.**

SAIN T LOUIS 10, MISSOURI



NEW YORK  
CHICAGO  
BALTIMORE  
RICHMOND, VA.  
CLEVELAND

## Is a Little Socialism As Bad as a Lot?

The railroads are, unavoidably, performing a lot of "community services" which are non-economic. These are the services which are not sustained by payments of patrons. The most noteworthy of them is the provision of suburban passenger service around a few of the largest cities. But there are more of these non-economic services—among them the provision at railroad expense of pretentious and highly-taxed passenger stations, the continued operation of red-ink local trains and stations, and the carrying of U.S. mail on all movements where standard government payments are less than the railroads' out-of-pocket costs.

Such "community services" are an incubus which no self-supporting and highly competitive private business ought to have to tolerate. If the railroads cannot rid themselves of such operations (and in most cases they cannot), then what's wrong with asking the community to take over, at least to the extent of offsetting the "red ink" involved? A good many railroad men shy away from this solution—looking upon it as a surrender to socialism. To our way of thinking, to ask a community to pay for a service which the community insists upon—but which it is impossible to support in full by collections from customers—is more of a defense against socialism than a surrender to it. There is a distinct difference between the situation of an industry which wants to continue providing a product or a service—and seeks government aid in so doing—and that of the railroads, which had just as soon be relieved entirely of the obligation to provide red-ink services.

The proposed solution to the difficulties of the Long Island Rail Road (*Railway Age*, May 31, page 11) involves a substantial remission of the taxation heretofore exacted from that railroad. Such remission is a clear transfer to the shoulders of other taxpayers of burdens heretofore borne by the railroad. The fact is, however, that the railroad for many years—beset by a short-sighted utilities commission, and by tax-hungry state and local governments—provided passenger transportation service at substantially less than its actual cost.

This public policy toward the railroad for many years deprived investors, whose funds made the service possible, of a return on their invest-

ment. Not only that, but this policy also resulted, of course, in impairment of plant and of the quality of the road's service. The remission of taxes as now proposed constitutes, merely, the return to the company of only a small fraction of the property values of which it was arbitrarily expropriated by public policy over a long term of years.

If the Long Island Rail Road had been unwilling to accept "tax relief" of this kind, the only practicable alternative—unless the quality of its service were to deteriorate beyond the danger point—would have been to surrender the property to outright state ownership and operation. Would that solution have been "less socialistic" than tax remission? There are some people who detect no difference in degrees of socialism, considering a little to be as bad as a lot. We sympathize with, but do not share, that opinion.

Practically every railroad in the country—at least all of those which handle any passenger or "head end" traffic—is suffering from the "Long Island virus" to some degree. Most of them do not feel as ill from this virus as the Long Island does, because practically all of them have a larger volume than it has of remunerative traffic which helps to conceal the anemia of their "community services." But no railroad today is rich enough to indulge in such red-ink operations. Their effect, everywhere, is to reduce railroad earnings—and hence to curtail credit for improvements in really remunerative operations. The drain on railroad revenues weakens the railroads competitively—hence hastening the day when other railroads may come as close to the brink of outright state ownership as the Long Island has.

If national and local governments would finance their transportation property (highways, waterways, airports) as railroad installations have to be financed—that is, make them fully self-sustaining from users' charges, to which would be added *ad valorem* taxes, with an end to financing by tax-exempt securities—then perhaps the railroads, too, could make their "community services" self-sustaining from charges levied on customers. They cannot hope to do so under the present dispensation; and the longer they make the futile effort to continue doing so, the more surely they are jeopardizing the continued free-enterprise status of that part of railroad service where the railroads are economically strong.

A monopoly can afford philanthropies, the cost of which can readily be shifted to "captive" customers. The railroads used to have a lot of such customers. They don't have many left today.



## Meet "Jawn Henry"

. . . That's the name the folks down in Norfolk & Western territory have given to the newest and largest single-unit locomotive yet to be built—the steam-turbine-electric No. 2300

"Jawn Henry"—signifying the legendary railroad Hercules whose power moved mountains—is the result of almost five years of planning on the part of the N&W engineering staff; Baldwin-Lima-Hamilton, builder of the locomotive; Westinghouse Electric; and Babcock & Wilcox. The latter two firms were responsible for the design and production of the steam turbine power plant and electrical equipment and the completely new type of high-pressure steam generating equipment engendering the 2300's 60-mph speed and 4,500 horsepower.

This new locomotive loaded with 20 tons of coal and 22,000 gallons of water, weighs 586 tons, or 1,172,000 lb. Behind its design was the objective of a powerful, coal-burning locomotive with the flexibility of the electric drive, and a thermal efficiency high enough to give a lower fuel cost than other forms of railroad motive power. To quote the N&W Magazine, "It may be the N&W's answer to the threat of oil as transportation fuel. Present road tests will tell."

No. 2300 has, during the past month, been undergoing shakedown tests in freight service between Roanoke, Va., and Bluefield, W. Va., having run a total of about 5,000

miles. The official tests which started last week will enable the N&W to evaluate the performance results with a view to formal acceptance at some later date. No performance data are available at this time.

The design combines several features which, while proved satisfactory in Navy and stationary practice, have been incorporated for the first time in locomotive practice in this unit. The use of steam at high pressure and high temperature (600 psi, 900 deg F), in a geared turbine unit developing 4,500 hp at the electric generator supplying power for the traction motors, contributes to the high thermal efficiency.

The front span bolster carries the cast-steel pilot and swing-type coupler. Traction and buffering loads are carried through the body center pin to the side trusses and to the rear center pin. The rear span bolster carries rubber draft gear and a tightlock coupler, also the cold and emergency feedwater pumps.

Sand boxes are located beside the coal bunker, ahead of the operator's cab, in the turbine and generator compartments. Each truck is sanded front and back. Sandboxes are filled from the top.

The Babcock & Wilcox water-tube boiler is a construction that eliminates water legs and staybolts, which, in the conventional steam locomotive not only limited the possible steam pressure but were responsible for high cost of maintenance and plenty of out-of-service time. The weight and space occupied by this boiler is considerably less than for the older fire-tube type.

Coal is fired by a conventional locomotive stoker. The grate is the traveling type. This is a most important improvement over previous practice as it prevents the accumulation of ash and clinkers which interfere greatly with the uniformity of the fuel bed, so necessary for prevention of smoke and for efficient combustion. The area of the grate, and the smaller amount of coal required, operate to reduce the rate of combustion per square foot of grate area and the cinder discharge from the stack, with a corresponding improvement in efficiency.

The air for combustion is supplied under pressure by a steam-turbine-driven axial blower through an air preheater, both of which are new features in locomotive practice. By these means the flue-gas temperature is reduced and the efficiency increased. This method of supplying combustion air eliminates the exhaust nozzle and the resulting back pressure on the main steam turbine characteristic of most previously designed steam turbine locomotives, as well as the conventional reciprocating type.

### **Boiler Feedwater System**

Water is pumped from the tender by a cold-water pump through a Zeolite softener on the tender, then through the turbine oil cooler and into an open type deaerating feedwater heater. From here a booster pump delivers the softened, deaerated and heated water to the main feed pump, which delivers it through an economizer (for additional heating) to the boiler drum. An automatic feed supplies sodium sulphite in proportion to water flow. A continuous boiler blow-down maintains proper boiler water concentration. The high-pressure emergency pump can deliver cold water from the tender directly to the boiler drum if required.

Control of fuel and air to the furnace as well as the feedwater to the boiler is completely automatic in exact

proportion to the demand for steam. The turbine governor maintains turbine speed by supplying more or less steam flow as required. The automatic control responds instantly to maintain boiler pressure by changing the coal supply and proportioning the air flow to the steam flow and by changing the boiler feedwater supply to keep the correct water level in the boiler drum.

The Westinghouse power plant consists of an impulse type non-condensing steam turbine which delivers 4,500 hp at 8,000 rpm to the generator for traction. The turbine drives the generator through an 8.9 to 1 ratio single-helical reduction gear. The generator has two armatures on a single shaft, each of which is electrically connected to two parallel groups of three series-connected traction motors (one motor on each axle).

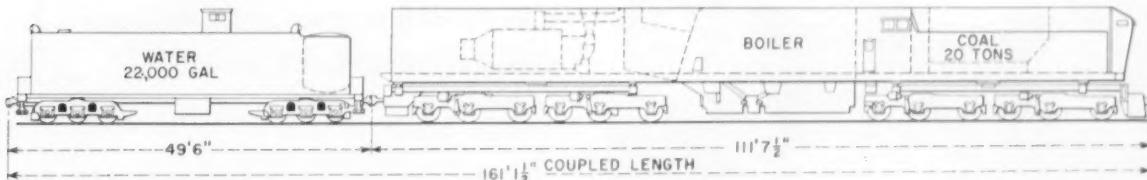
Electric controls and dynamic braking equipment for forward and rear trucks are in compartments at the front and rear of the power unit.

The cab and its equipment are supported by two side trusses, with liberal cross-ties for box strength. The side truss with no cab underframe construction was dictated by the fact that the boiler takes up the entire locomotive cross-section between the side trusses for a length of 34 ft. The boiler is 102½ in. wide with its roof sheet conforming to and forming the cab roof over the boiler. The ash pan clears the rail by only eight in.

The operating brake (Schedule 24RL) is located under the operator's cab, with the air pumps and reservoirs under the coal-bunker side slope sheets. Axial-flow traction motor blowers are located in the electrical compartments, each blower supplying air to six traction motors.

Fans for ventilating the dynamic braking resistors are driven by motors connected across the resistors. The braking effort varies from 35,000 lb at 50 mph to 130,000 lb at 14 mph.

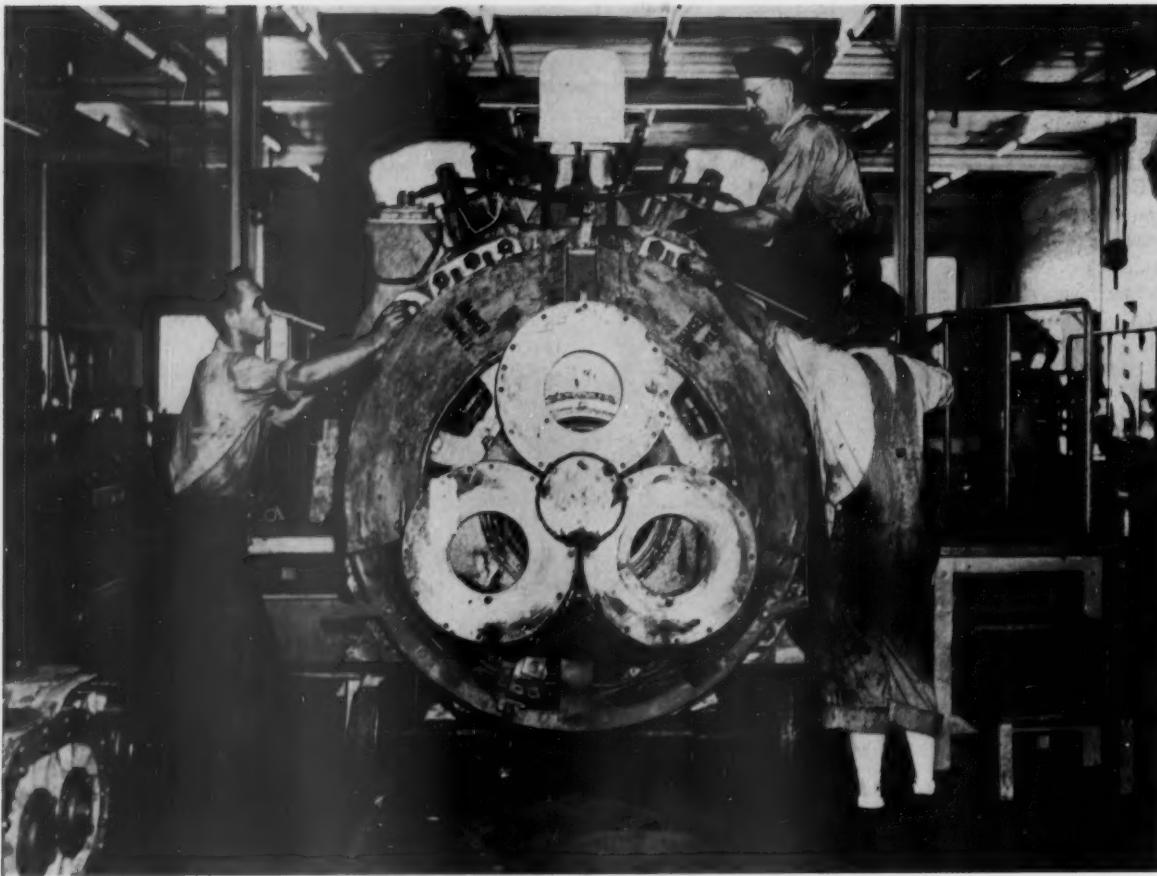
Among the old and established features are the steam-driven air compressors and the whistle. The trucks, including the Westinghouse type 370-DZ traction motors, are standard for diesel locomotives. The main turbine, generators, turbine-driven combustion air blower, and electrical control are all adapted from existing practice in railroad, marine and other power fields.



### **CHARACTERISTICS OF EXPERIMENTAL COAL-FIRED TURBINE ELECTRIC FREIGHT LOCOMOTIVE**

|  |           |
|--|-----------|
| Wheel arrangement .....                          | 6-6-6     |
| Rated horsepower at turbine shaft .....          | 4,500     |
| Starting tractive force, lb .....                | 175,000   |
| Rated continuous tractive force (9mph), lb ..... | 144,000   |
| Rated maximum speed, mph .....                   | 60        |
| Wheel base, ft-in.:                              |           |
| Rigid .....                                      | 13-0      |
| Total engine .....                               | 96-5 1/2  |
| Total engine and tender .....                    | 147-3 1/2 |
| Driving wheels, diameter, in. ....               | 42        |
| Steam pressure, psi .....                        | 600       |
| Steam temperature, deg F .....                   | 900       |

|                                  |                            |
|----------------------------------|----------------------------|
| Weights, lb:                     |                            |
| On drivers .....                 | 807,000                    |
| Tender, loaded .....             | 365,000                    |
| Tender, empty .....              | 180,800                    |
| Locomotive and tender .....      | 1,172,000                  |
| Boiler tube .....                | B & W, natural circulation |
| Stoker .....                     | Standard Type BK           |
| Coal capacity, tons .....        | 20                         |
| Turbine, generator, motors ..... | Westinghouse               |
| Roller bearings:                 |                            |
| Locomotive trucks .....          | Timken                     |
| Tender trucks .....              | SKF                        |



Diesels are kept in shape partly by progressive maintenance, partly by unit exchange, partly by mileage repairs.

## What's Good Diesel Maintenance?

---

Here is how the Frisco gets good maintenance with a minimum budget as its diesel fleet grows older and costs and requirements mount



This article is the third in a series on contemporary railroad management: its goals, its methods and its outlook. The series is being presented in the form of a case history of the St. Louis-San Francisco, its problems and how they are being handled. The first article appeared in the issue of May 3, on page 34; the second appeared in the June 21 issue, on page 33. Other articles in the series will be presented at intervals.

The problems of diesel maintenance are beginning to assume an entirely new aspect on most railroads. With heavy or complete dieselization, and with the diesel fleet growing older, maintenance costs start to mount. Questions arise such as:

*Can railroads afford preventive maintenance, replacing many parts before their normal life expectancy is used up?*

*How much training should road crews be given in repairing on-the-road break-downs?*



**Truck and traction motor repair periods are completely independent of engine, body and auxiliary work.**

*Should all heavy maintenance be handled in central shops, or can smaller outlying shops handle some of their own?*

*Is it best to overhaul an entire unit, or can truck, engine and electrical repairs be handled at different intervals?*

The Frisco is meeting these problems in a manner rather typical of most roads. And, like most roads, its general diesel maintenance policy is a reflection of its policy in the days of steam power, when it kept rather high standards. If such things can be classified, the Frisco is conservative, following the practices generally recommended by the locomotive builders. Departures from "standard" in major items of practice are primarily of degree.

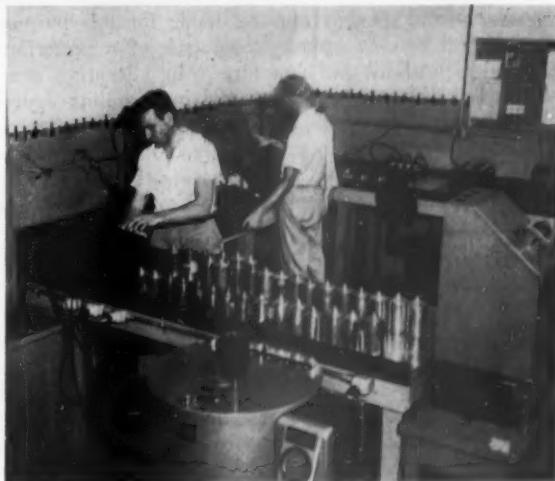
The Frisco was completely dieselized in 1952, and its locomotive fleet now consists of 145 road freight units, 144 road switchers, 105 switchers, and 23 road passenger units. During the first few years of diesel operation the



**Cylinder assemblies are the principal item handled on a progressive maintenance basis.**



**There is no correlation between the times inspections are due on different units of a locomotive.**



**The Frisco is one of the few roads running lubricating oil indefinitely without spectrograph inspection.**

Frisco's cost of maintaining diesels was low, after which maintenance costs rose steadily for a few years. During the last year this upward trend has been reversed generally as a result of more efficient maintenance procedures.

### **Measuring Repair Costs**

There are three commonly accepted ways of measuring and comparing diesel maintenance costs: (1) per unit mile; (2) per gallon of fuel oil consumed; or (3) per thousand gross ton-miles. The most meaningful of the three is probably the repair cost per gallon of fuel oil consumed because it is the most nearly direct means of relating repairs to the actual horsepower developed and used.

The recent general decline in Frisco diesel maintenance cost has been both relative (compared with the average of all roads that report costs to General Motor's Electro-Motive Division) and absolute (in terms of cents per mile, per gallon of fuel consumed and per 1,000 gtm). Freight unit repair costs dropped from a peak of 9.39 cents per gallon of fuel oil in 1952 to 7.81 cents in 1953 (or from 24% above the average to 1% below the average).

Similarly, costs per unit mile have declined from 26% above average to 1% below and the cost per 1,000 gtm from 41% to only 8% above average.

In passenger service the maintenance cost has been consistently below the all-road average by any of the three bases of comparison. In road-switch service, Frisco costs have hovered around the average but have been rising slightly relative to this average. In yard switch service the Frisco was 50% above average for 1952, 20% for 1953.

One explanation for the better showing made on road freight and passenger power than on yard and road switchers is that substantially more servicing and minor repairs at least are performed on these latter types of units at smaller outlying points some of which—while scheduled for modernization—are at present poorly equipped for the work they must handle.

Some people in the industry question how valid the EMD figures are for comparing different roads. Frisco management feels they are unsuitable for this purpose for several reasons—among them lack of a prescribed formula, possibility of inaccuracy in allocating overhead, and different bases employed in compiling figures by different departments on different roads. To these is added a question as to how closely the average is true and representative with such large diesel users missing from the latest figures as B&O, UP, GM&O, MP and Pennsylvania.

### **Diesel Maintenance Philosophy**

The Frisco maintains its diesel power partly by progressive maintenance, partly by repairs based on mileage, and partly by unit exchange. Mileage repair schedules are somewhat comparable to the classified repairs of steam days—but not completely so—and are similar to the practices of other diesel roads.

Truck and traction-motor repair periods are completely independent of engine, body and auxiliary repairs. Truck

and traction-motor work is scheduled on a mileage basis to coincide with wheel turnings. This averages slightly over 87,000 miles on freight units, and 91,000 miles on passenger units. At this time, the traction motors are completely cleaned, commutators checked (and turned and undercut if over .002 in. out of round), the motor bearings checked (and renewed if listening rod shows any signs of noise when motor is driven by an electric welder at about 200 rpm), and the wiring checked by a high-potential test.

All traction motors on road engines are unit exchanged at about 500,000 miles, main generators between 750,000 and 1,000,000 miles. No attempt is made, during servicing and repairs, to keep traction motors in a given combination, or on a given locomotive unit.

Cylinder assemblies are the principal operation handled on a progressive maintenance basis, primarily because they generally need overhaul about twice as often as the engine itself. Progressive maintenance here avoids tying up the unit between engine overhauls. An attempt is made to gain the principal advantage of progressive maintenance—higher availability—without throwing away an excessive amount of unused mileage in those parts that come up for replacement early in the program. Partially used parts are saved and installed wherever they can reasonably be expected to hold up until the next progressive maintenance period, or major overhaul.

For routine servicing between overhauls, the Frisco follows the standard builders' recommendations for mileage inspection and repairs at 5,000, 10,000, 30,000 and 60,000 miles. When such routine work comes due, no attempt is made to have different type inspections come due on the different units of a locomotive at the same time, in order to keep the total volume of work relatively constant from day to day. Neither is an attempt made to have the same type mileage inspection due on each unit.

Either practice would be too complicated with the Frisco type of operation where units are cut in and out of locomotives as required by the tonnage and determined by the dispatcher, with no effort devoted to keeping the same group of units together. All units could be due for a 60,000-mile inspection, all for a 5,000-mile, or any combination of these and the 10,000 and 30,000-mile inspections.

### **Few Repairs by Engine Crews**

In training enginemen to handle failures out on the road, primary emphasis is placed on teaching them to give a clear description of the failure via train radio to an experienced maintenance man who can better diagnose the cause of the trouble and give step-by-step instructions on remedying it. Maintenance people are normally far more experienced in knowing how to remedy failures than an engineman could be trained to be.

The use of these radio descriptions also helps the shop by giving a more accurate and detailed report. This helps speed repair of partial failures when they limp in, and to have proper equipment and parts on hand for repairing those failures which are best not attempted on the road.

Successful diesel operation is given a healthy boost by

a series of diesel notes issued from time to time by the maintenance department and distributed to engine and diesel shop forces over the entire system. Readership is assured by a jaunty, humorous and informal writing style, and by catchy titles such as "How to Take the DIE Out of Diesel," "Danger 600 Volts," etc.

These notes are normally divided into three sections—(1) what happened, (2) the cause, and (3) the lesson to be learned. They all deal with actual happenings on the Frisco, but in no case do they give the locomotive number, location or names of personnel involved. Thus the notes can play to the natural reader interest in news about other people, what happened, and how it might have been prevented, without embarrassing or holding up those persons actually involved as examples of wrongdoing.

Failures are grouped by type and carefully studied. In this way operating practices or geographical conditions which lead to failures can be pointed up and enginemen warned about them. For example, this kind of study disclosed that most flashover failures occurred while going down grade—probably due to the voltage build-up following the temporary reduction in load.

Another study disclosed that oil vapors blown in by the generator fan caused dirt to accumulate on the armature and commutator and stick fast, thus lowering the resistance value of the insulation and increasing the danger of flashovers.

This particular condition has been remedied by placing a standard car-body filter, unoiled, in front of the generator fan. This catches the oil vapors, so that the dirt that does accumulate on the armature and commutator is dry, does not stick as firmly as when an oil film was present, and can easily be blown off. The filters are cleaned and replaced, dry and unoiled, every 5,000 miles. During this period they pick up an average of 5 ounces of oil and 5 ounces of dirt.

#### **Local and Top Management Relations**

Relations between top management and supervisors at different points are aided by a semi-annual meeting between the superintendent of motive power and a group of foremen (from one to three, rotated each meeting, from the jurisdiction of each master mechanic). These meetings give each supervisor on the railroad, either through his own attendance or through another who is representing him and knows of his problem, a chance to air these problems and discuss them with management. A foreman at one point gets a chance to learn the problems of other foremen at other points and how they were solved.

Through these meetings the superintendent of motive power learns at first hand what problems are confronting his supervisors.

While completely independent of the mechanical department, and in no way under its control, the test department has an important role in the overall maintenance operation. Its largest single function is diesel lubricating oil testing, and over half of all its work is for the mechanical department. Oil changes are made on the basis of test results only, with no maximum mileage set, the Frisco being one of the few roads to adopt such a policy without the aid of a spectrograph (though one is to be installed the end of this summer).

## **Benchmarks and Yardsticks**

**What percentage of railroad men** is there—not just of rank-and-file employees, but of officers and supervisors—who could, without warning, give correct and convincing answers to such questions as those having to do with the ratio of the nation's total freight service performed by the railroads; the obsolescence of the "long-and-short-haul" clause; or the difference in the methods of paying for fixed plant for railroads, and for their competitors?

**Such questions go to the heart** of the continued existence of the railroads as a growing industry, under private enterprise. It has been the observation of your reporter that too few railroad men really know the right answers to these questions—and that the lack of adequate information and articulateness on the subject includes many railroad people with public contacts.

**It has long been our belief** that it is decidedly worthwhile for the railroads to educate the public to awareness of its interest in what might be called the "comparative economics" of the various agencies of transportation. But, probably, such education, like charity, ought to begin at home. That is to say—you can scarcely expect John Q. Public, who does not have his immediate livelihood at stake in the answers to these questions, to show more knowledge of and interest in them than the people do who have a direct self-interest.

**From many years' of observation** of efforts of this kind in the railroads' behalf, your reporter has reached some convictions in this sector, among which are the following: To try to impart to the general public information about these things before substantially all literate railroad men have become proficient in discussing them, savors a little of the housewife who spends her time in charitable endeavors while her own children are neglected.

**Along with railroad officers** and employees, the group which—from a standpoint of direct self-interest—ought to "know the answers," is that of railroad suppliers. Observation does not lead to the belief that, generally speaking, this group is especially well informed.

**With the thought** in mind of "expanding from internal strength" with such a program of information, the next logical group beyond that of railroad men and railroad suppliers would appear to be railroad patrons—especially those industries which are largely dependent upon the maintenance of adequate railroad service. Beyond this group, the next one might well be either the organized taxpayers or groups of business leaders.

**A deep understanding** of the economics of the transportation situation by the general public is highly desirable—but such understanding by the people closest to railroading (employees, suppliers and customers) is indispensable. J.G.L.



**NEW FACILITIES** serve entire Chicago area from the outskirts of Hammond, Ind. Headhouse (*left*) contains billing and accounting offices for the area. Tailboard space, at right, accommodates 44 trucks. Out-of-city location enables faster pick-up and delivery service since downtown traffic congestion is avoided.

## Why Monon Moved to the Suburbs

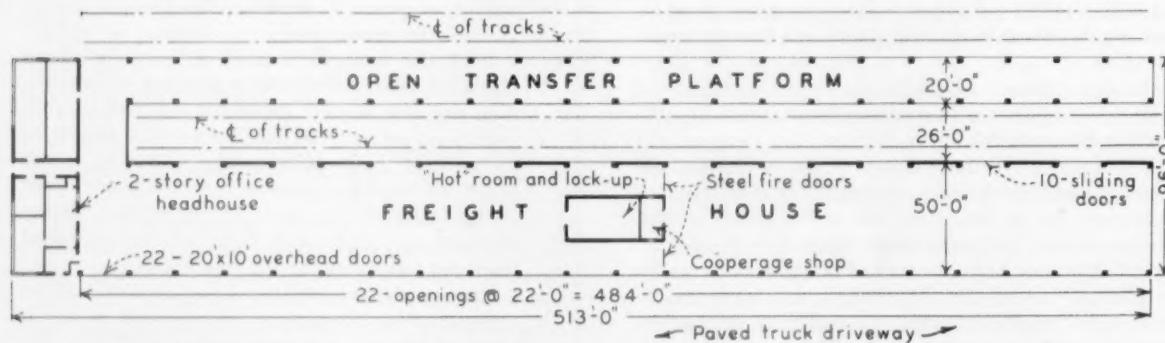
Modern freight-handling facilities at Hammond, Ind., including a centralized checking system, expedite movement of ICL in the Chicago area

The Monon has recently completed a new 96-ft by 500-ft freighthouse adjacent to its classification yards at Hammond, Ind. The new facilities serve as a central ICL handling point for all inbound and outbound shipments in the Chicago area, and replace an old freighthouse near Chicago's "Loop," which the Monon leased from the Chicago & Western Indiana.

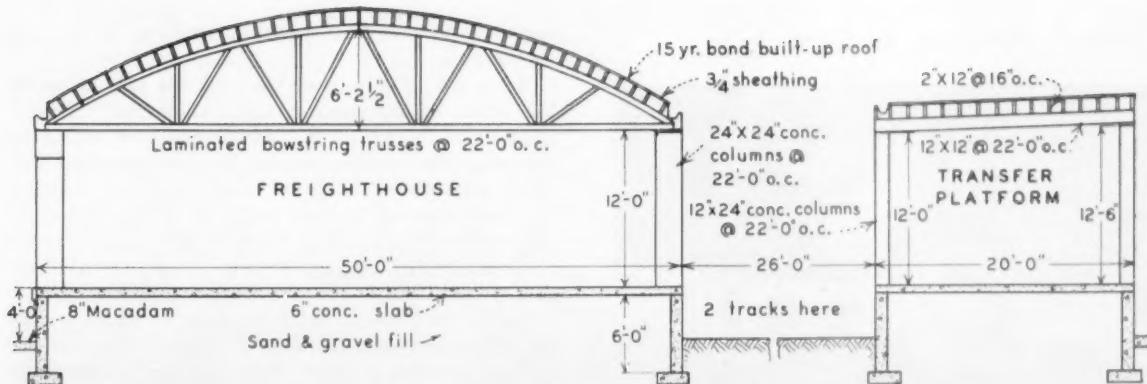
By locating the freight-handling operations at the Hammond yards, four important advantages were gained:

1. It is now possible to obtain frequent switching on the freighthouse tracks because of the proximity of yard engines.

2. Cars can be spotted immediately after the arrival of trains, and, conversely, they can be pulled as required



**DOOR OPENINGS** along track side of main house, and column spacings on transfer platform, permit all cars to stand adjacent to an opening when the "cut" is shoved to the end of the track.



**WOOD BOWSTRING** trusses, resting on reinforced concrete columns along the outside walls, support the roof, providing unobstructed floor area. Transfer platform is open on three sides and has a shed-type roof.

from the house tracks for placing in outgoing trains.

3. By getting away from the traffic congestion of the old freighthouse location in Chicago, pick-up and deliveries of lcl merchandise have been speeded up considerably.

4. Interchange cars can be handled more expeditiously since the new site is readily accessible to various belt systems in the Chicago area.

Monon officers point out that they can now give overnight lcl service at Chicago to and from any point on the line, and that the new freighthouse location enables them to cut a day off the time formerly required to handle interchange shipments.

#### Functional Building Design

The structure is built in the shape of a "U," with a two-story office headhouse forming the bottom of the "U," and with two tracks extending between the legs of the "U." The main freighthouse, comprising one side of the "U," is an enclosed area 50 ft by 484 ft, which is served by a truck driveway along the outside. A transfer platform, 20 ft by 484 ft, forming the other leg of the "U," is served by two tracks on the outside, which can handle 11 cars each. The main freighthouse and the transfer platform are connected at the headhouse end by an enclosed passageway 22 ft wide. (See diagram on opposite page).

In the main house there are 22 20-ft wood-sectional overhead doors along the tailboard side. This gives space for parking 44 trucks—two to each door opening. On the track side there are 10 20-ft openings. These are fitted with sliding doors 22 ft apart so that when a switch crew moves ten cars in on the tracks until they strike the bumping post, each car will stop adjacent to a door without further spotting.

On the transfer platform, which is open on both sides, the roof is supported by concrete columns placed 22 ft apart along the edges of platform. Here also, when cars are shoved in as far as they will go, they will all be situated in the clear of the roof columns.

Wood bowstring trusses were installed to support the roof of the main freighthouse. Wood was selected instead of steel for the truss system because it reduced construction costs by a sizable amount. The trusses span between columns located 22 ft apart along the outside



DESIGN of platform with columns along outside edge permits easy movement of equipment on platform.

walls of the building, thus leaving practically the entire floor area clear for the storage and movement of freight. A 20-ft by 44-ft enclosure, containing a "hot" room, lock-up and cooperage shop, is in the center of the building.

One of the operational features of the new house is an extensive intercommunication system including centralized checking, as well as paging speakers and conventional telephones.

The four checkers work at a large circular table in the office. Each checker has a communications console which includes keys and indication lamps for outgoing circuits.

At the spots where cars are loaded or unloaded, 31 communication outlets are located. Also at spots where trucks are loaded or unloaded, there are 44 outlets. Each outlet includes a reel, with 50 ft of extension cord ending in a twist-lock socket.

The caller on each crew has a small portable talk-back loudspeaker. When his crew is to work a car, he plugs his speaker into the roll-reel cord nearest the car, and then reels off the cord to carry the speaker into the

## Central checking system . . .



HANDLING CREW includes caller who carries talk-back loudspeaker into a car or trailer to be worked.



COMMUNICATIONS outlets for speakers are each equipped with 50-ft extension cords on reels.



CHECKING is handled at console units where waybill and address information is exchanged with callers.

car where he puts it on a package or hangs it on a nail on the wall.

When the caller is ready to work the car, he pushes the button on the speaker, which causes an indication lamp to be lighted on the console panel of one of the checkers. The checker presses the corresponding key, which connects his telephone head set to that incoming line, and steps on his foot switch to answer. When the caller gives the number of the spot and car, the checker turns the centrally mounted rotating circular file case, to pull the "book" of waybills for that car. As the packages are brought down in the car, the caller uses his talk-back speaker to tell the checker the name and address on each package. Then the checker replies to give the spot number of the car or truck to which the package is to be taken.

At strategic locations throughout the house and platforms there are 14 large-size paging loudspeakers. Each checker can connect his console to use his headset to call someone over this paging system. The person called can answer either by using one of the small-size portable talk-backs, or he may answer by using one of 14 conventional wall-mounted telephones, placed throughout the house and the platforms.

### Mechanized Equipment Added

Handling of the freight has also been improved in conjunction with the relocation of the freighthouse. Three new Clark tractors were purchased to assist in moving merchandise around the new house. Two of the tractors are designed for towing freight trucks, while the third is equipped with a fork-lift attachment in addition to a coupling for towing. Practically all of the freight is transported about the house on converted Colson skids which were modified from two-wheel trucks to three-wheel units by the addition of a dolly wheel under the front end. This enables the skids to be handled in tandem and permits tractors to haul a larger load per trip.

The first floor of the headhouse portion of the structure, in addition to housing the centralized checking bureau, contains all of the billing offices and an office for the general agent. There is also a wash and locker room and a lunchroom for the freight-handling crews. On the second floor all of the accounting, "OS&D" and claim-department work is handled for the entire Chicago area.

At one end of the second floor are complete kitchen and dining facilities for the clerical employees. At the opposite end are two rooms, one housing a hot-water heating plant, burning propane gas, and the other all of the communications equipment.

The building is constructed with concrete-block walls and reinforced concrete foundations, columns and floors. The office portion is finished outside with face brick and cut stone, and is well lighted through a generous area of window openings, as well as fluorescent fixtures.

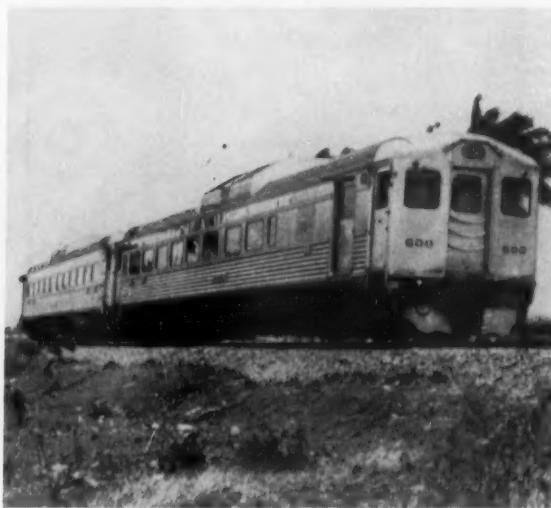
The design and construction of this freighthouse were carried out under the general direction of L. F. Racine, chief engineer. C. A. Thornstrom & Co., Skokie, Ill., had the contract for the project, and Fred C. Weber, Chicago, was the architect. The new facilities are under the supervision of Frank Hyer, general agent of the Monon for the Chicago area.



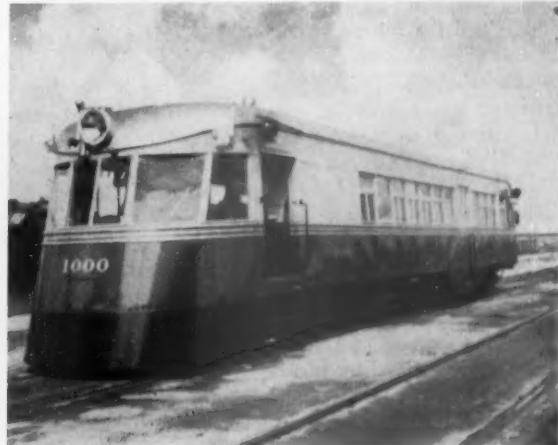
A single-unit 1,500-hp Alco diesel arrives at Camaguey with No. 1, the overnight train from Havana. No. 1 averages 11 cars, including a dining car and three standard steel sleepers.



600-hp switchers handle some local passenger runs, and double in freight and switching service during layovers.



The Consolidated operated its 12 Budd RDC cars a total of 1,110,310 miles last year.



Two rail cars which formerly operated on U.S. lines have been completely rebuilt with Cummins diesel engines and are giving excellent service. No. 1000 is posed on the newly-completed concrete pier at Port Tarafa, Cuba's largest sugar port.

## Modernization Is the Watchword

### ON THE CONSOLIDATED OF CUBA

In the face of adversities which drove the comparable United of Havana to government ownership, the Consolidated Railroads of Cuba has remained a private enterprise. Handicaps include government regulation of both freight rates and wage scales; unbridled highway competition; an obligation to operate an extensive pas-

senger service, including many branches; and, most restrictive of all, a federal law which prohibits dismissal of employees. Progressive modernization has enabled the Consolidated to combat rising costs, hold traffic to its lines, and remain solvent.

The Consolidated is progressing toward complete

dieselization, which will be effected on delivery of 51 units now on order. Steel freight cars, meeting all requirements for interchange with U.S. roads, are replacing wooden cars.

Track maintenance is being rapidly mechanized. Rail sections of 115 lb are replacing 90 lb rail on main lines, and heavy rock ballast is being installed, as fast

as finances permit. Modern warehouse and pier facilities are improving operations at the road's several seaports. Accounting procedures are largely mechanized.

The illustrations show some of the progress the Consolidated—one of the largest privately owned railways outside of the United States—has made in the postwar years.

## Dillard Heads Central of Georgia

New president also will retain duties and title of general manager—Ralph E. Sease named assistant general manager

William E. Dillard, vice-president and general manager of the Central of Georgia since January 16, 1953, has been elected president and general manager. Mr. Dillard, as president, succeeds Ben J. Tarbutton, president since January 1951, whose intention to retire from that office was reported in *Railway Age*, June 21, page 12. Ralph E. Sease, general superintendent of transportation since last January, has been elected to the newly created position of assistant general manager.

Mr. Dillard, 21st chief executive of the 121-year-old CofG, was born in Buena Vista, Ga., February 13, 1898, and joined the railroad May 31, 1915, as a night clerk in Ellaville, Ga. Shortly thereafter he became agent at the Ft. Mitchell, Ala., freight station, where he developed an interest in railroad telegraphy. During the next several years he worked at various locations as operator and relief agent, freight agency cashier, and agent.

In 1932 Mr. Dillard was appointed chief clerk of the Columbus, Ga., freight agency, becoming agent there the next year. Six years later he went to Cedartown, Ga., as trainmaster. In 1942 he was promoted to superintendent of the Columbus division, which position he held until 1952, when he became general superintendent, with headquarters at Macon, Ga. Four months later he was elected general manager.

Mr. Tarbutton, prominent for many years in the civic, industrial and political life of his native city—Sandersville, Ga.—and state went to work, after leaving college, in various enterprises owned by his family. Among the family properties was the Sandersville Railroad, a 3-mile line connecting the CofG at Tennille, Ga. Mr. Tarbutton, when a vacancy occurred, took over the general management of the Sandersville, becoming its president in 1922. He has been a state senator, and, for two terms, a member of the Georgia house of representatives.

Mr. Sease, son of a railroad section foreman, was born in Prosperity, S.C., and graduated in civil engineering from Clemson College in 1925. After work with the Alabama State Highway Department and the Atlantic Coast Line, he joined the CofG on November 1, 1928, as a draftsman in the engineering department. Following a series of promotions and transfers, Mr. Sease became superintendent of the Columbus division in January 1952, and, in July 1953, superintendent of transportation at Savannah, in which post he remained until he was appointed general superintendent of transportation.



William E. Dillard



Ralph E. Sease

# 9 GOOD REASONS WHY FRISCO IS REPPOWERING STEAM CRANES WITH CAT\* DIESELS



- 1 Fuel savings are estimated at \$1 per working hour.**
- 2 Crane is always ready for use—no water or morning firing needed.**
- 3 Carries enough fuel for 100 hours of operation.**
- 4 Some cities prohibit steam-powered cranes because of smoke.**
- 5 Some states require expensive, coded boilers.**
- 6 Monthly boiler inspections are eliminated.**
- 7 Standby cranes do not have to be steamed up 24 hours a day.**
- 8 Boiler insurance is eliminated.**
- 9 Easier to inspect and clean.**

The St. Louis and San Francisco Railway Company is preparing to convert its entire steam crane fleet to diesel power! Frisco officials feel it is a logical step after converting all its main line locomotives.

The first crane repowered—as a test—was a 30-ton Browning. A Cat D318 Railroad Diesel was used because the job required steady, dependable power. Not only was the engine to replace the reversing steam engine, but it also was to drive the independent swing.

A Caterpillar Dealer sales engineer designed a special arrangement of gears and clutches to bridge the power gap left by the removal of the steam engine.

The powerful D318 was equipped with a torque converter. The engine, through its torque converter, chain drives a jackshaft running parallel to the engine. This jackshaft transmits power to two swing clutches mounted on a fabricated steel base. Bevel gears actuated by these clutches transfer power to the swing gear arrangement. The crane crankshaft is chain driven from the jackshaft.

Does it work? The answer is in Frisco's new orders. Two more cranes are being repowered with Caterpillar Diesel Engines and two more will be soon.

Follow the lead of leading railroads. When you repower, or order new off- or on-track equipment, specify Caterpillar Diesel Engines.

Caterpillar Tractor Co., Peoria, Illinois, U. S. A.

## CATERPILLAR\*

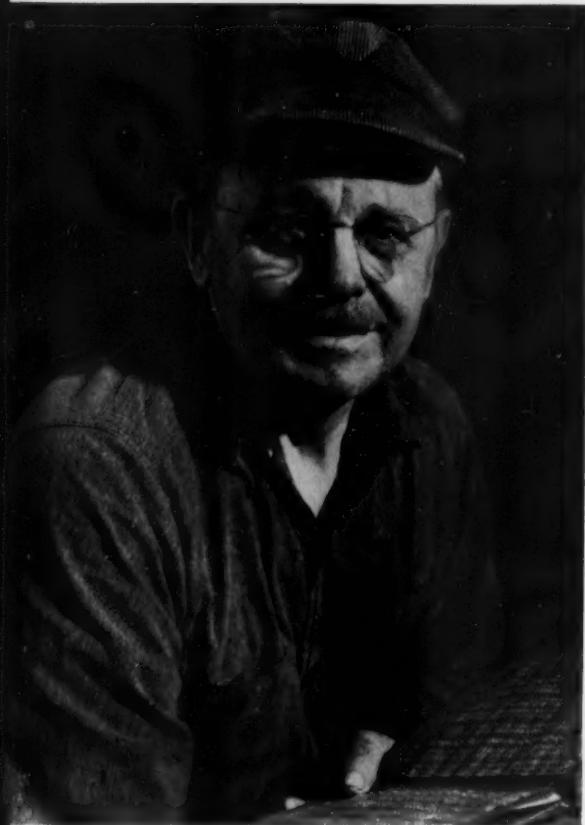
\*Both Cat and Caterpillar are registered trademarks—®

FOR HIGH-PROFIT  
PERFORMANCE—  
SPECIFY CATERPILLAR

UNITED STATES STEEL

# "We custom-fit every crossing before it leaves the shop"

SAYS *Ed Brown, U.S. STEEL CROSSING FITTER*



- This four-crossing, 16-intersection layout is typical of the crossings which are shop-assembled constantly by Ed Brown and his crew. This particular one, consisting of 1585 separate parts, will become a Crab Creek Crossing for the B&O Railroad, East and West Bound Mains over the Pennsylvania Railroad at Youngstown, Ohio.

EVERY crossing manufactured at U. S. Steel's Johnstown Works has to be preassembled at the shop for exact adherence to specifications before it is shipped to the customer. Crossing fitting is a critical step in the manufacture of Trackwork. All parts must fit precisely as dictated by the complex blueprints, with virtually no tolerance permitted. A great deal of machining and grinding on rails and frogs is required to accomplish such "tailored" fitting.

When a crossing is completely assembled, every part is marked to indicate its position in the layout. The crossing is then dismantled and shipped. With the aid of the markings, it can be reassembled rapidly and correctly at its destination.

There is no margin for error in crossing fitting—and no one is more aware of this than Ed Brown. Here, precision is the key word. Fast, heavy freight and high-speed passenger trains depend for their safe and uninterrupted operation on these crossings being perfectly formed, perfectly fitted. That's why Ed Brown has to be a specialist. Fifteen years of crossing fitting has made him one. And the years he spent previous to that as a grinder, planer, drill press operator, and trackwork press operator gave him the ideal background for his present job. In all—37 years in Trackwork with U. S. Steel. A true specialist.

But what does it all add up to—this precise man with his vast knowledge of so many phases of Trackwork? Just this—*years of experience, plus painstaking manufacture, make USS Trackwork the finest you can buy.* For further information, write to United States Steel Corporation, 525 William Penn Place, Room 4402, Pittsburgh 30, Pennsylvania.



## TRACKWORK

UNITED STATES STEEL CORPORATION, PITTSBURGH — THINNESED COKE & IRON DIVISION, PHILADELPHIA, PA.  
COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO — UNITED STATES STEEL EXPORT COMPANY, NEW YORK



## "TORN TAPE"

*What it is and how it can streamline your message center*

The equipment you see below handles communications in a message center pretty much the way a switching system handles freight in a railroad yard. It acts as a transfer point, organizing volumes of incoming intelligence, routing it to the right track and speeding it to its destination.

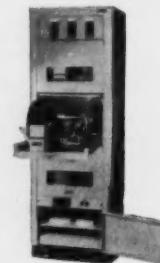


Bank of six "Torn Tape" sets. Each set consists of a transmitter and a receiver cabinet, fitted out to handle three incoming and three outgoing lines.

Printed, chadless (not fully perforated) tape is the heart of the system. Tape is an assured means of relaying data that completely regenerates the original signal, sending it on its way fully restored and distortion-free. Tape can be spliced, patched, stored.

And because the tape is keyboarded only at the point of origin, it represents labor that need not be duplicated. An attendant merely tears off each completed

message as it is received on a reperforator in one of the receiver cabinets and inserts the torn tape in the "washboard" mounted on one of the transmitter consoles. Another attendant pulls the tape through the board and threads it in the appropriate transmitter, as indicated by the address code printed on the tape. The message is automatically numbered and transmitted.



When desired, monitors are provided for keeping an accurate record of all the messages transmitted.

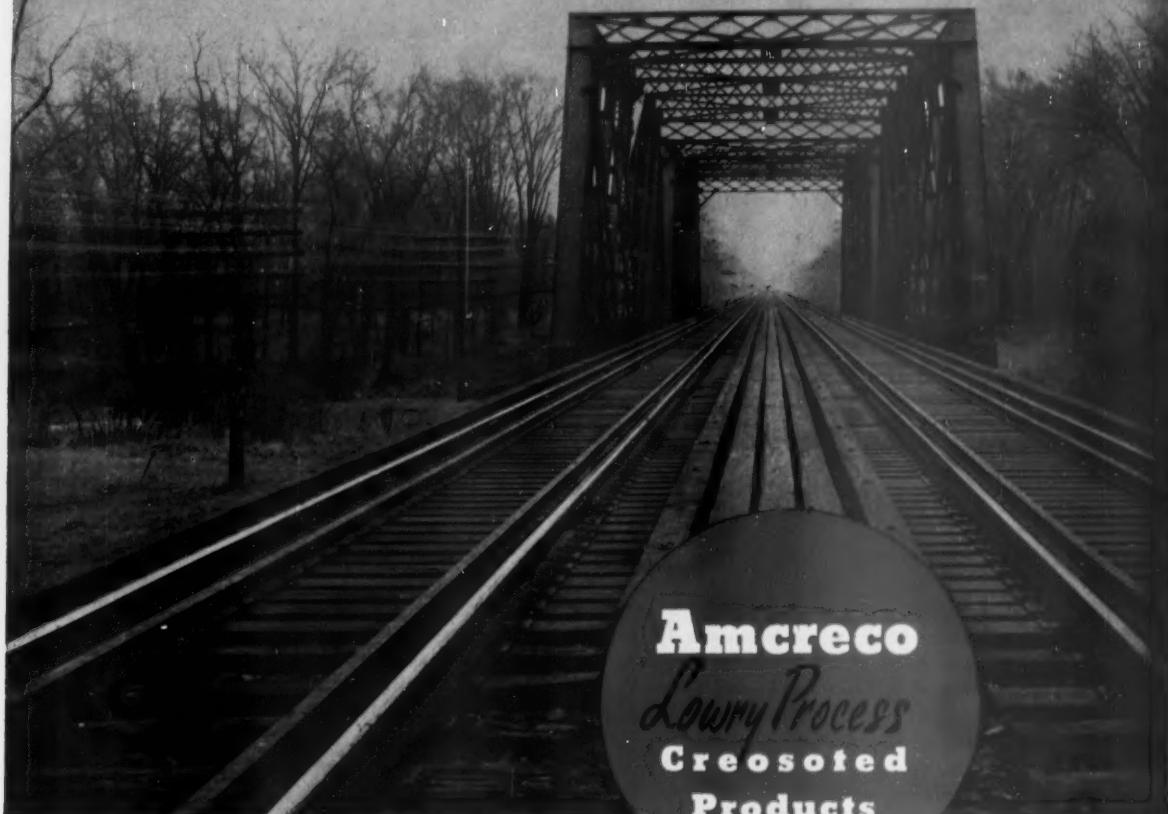
Teletype "Torn Tape" equipment can simplify, concentrate and streamline operations in your message center because it applies production line techniques to message handling.

There's much more to tell but our space is limited. Why not write us today for full information: Teletype Corporation, 1400 Wrightwood Avenue, Chicago 14, Illinois.



# AMCRECO...

## main line to lower maintenance costs



Amcreco  
Lowry Process  
Creosoted  
Products

## Pressure treated for Strength that Lasts

Adzed and  
Bored Cross Ties  
Bridge Ties  
Piles  
Timbers

Just as railroad service has improved through the years—so has the quality of AMCRECO cross ties, bridge ties, piles and timbers. Through continuing research in the last quarter of a century, the service life of Amcreco creosoted products has been greatly extended. Improvements in our basic Lowry process of Creosoting under Pressure have given a green light to construction and maintenance economy. Write for a full explanation.

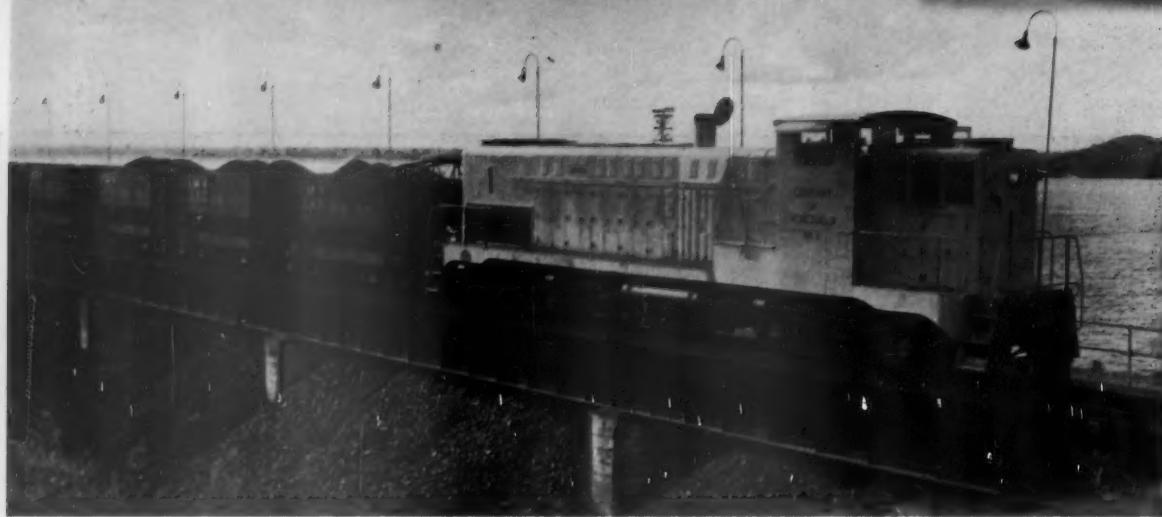
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GENERAL SALES OFFICE—CHICAGO, ILLINOIS  
18 FIELD SALES OFFICES TO SERVE YOU



For loading, cars are spotted with hand brakes and made up into 34-car trains.

## ON PIONEER ORE LINE . . . **No Trouble in the Tropics**

By B. K. MARTIN

Over two years of successful operation of a 35-mile standard-gage railroad for the haulage of iron ore in Venezuela has been completed. This line is the first of nearly 500 miles built or projected in Venezuela for the haulage of iron ore to river or coastal ports for transportation by ship to steel mills in the United States.

Climatic conditions in this equatorial region, which include excessive rainfall and humidity, have not been a major problem in connection with operation and maintenance of locomotives and cars. Neither has the presence of dust from iron ore, the only product handled.

This line's three 1,500-hp road locomotives, built in the United States, were placed in service in 1949.

Trains of 34 70-ton short hopper cars are operated by American enginemen, assisted by local helpers and brakemen. Dynamic braking is employed for the first twelve miles of maximum two per cent grade. This is supplemented by straight air train brakes requiring a separate brake valve at the enginemen's position, and an additional train line hose and pipe connected to the standard automatic brake equipment. This installation is one of few applications of straight air train brakes on American equipment. Maintenance of the locomotives is done at the mine and under the supervision of American technicians and local mechanics.

An open-end inspection shed, pit, platforms, benches and tool cabinet provide adequate maintenance facilities. Continuous mild temperatures and periodic heavy showers are weather characteristics.

Because of the large number of curves, locomotive wheel flange life has been approximately 9,500 miles. A spare locomotive truck complete with motors permits the change of a truck with slight effect on the availability of the locomotive. This work is done in the mine shop using four electrically operated (synchronized) 50-ton jacks. Overhead cranes in this shop enable

removal of traction motors from trucks or the lifting of ore-car bodies when wheel changes are necessary.

Wayside flange lubricators have been installed on the right-of-way at 14 locations. Differences of rate of flow of lubricant, which prevail in temperate climates, do not occur due to smaller variations of ambient temperatures. As a result of the flange lubricator installation, flange life has increased from 9,500 miles to 55,000 miles on locomotives and from 36,000 miles to 75,000 miles approximately on ore cars.

The car fleet consists of 100 70-ton, longitudinal drop door, short hoppers and some 10 service cars. The ore car fleet is to be increased 20 per cent soon.

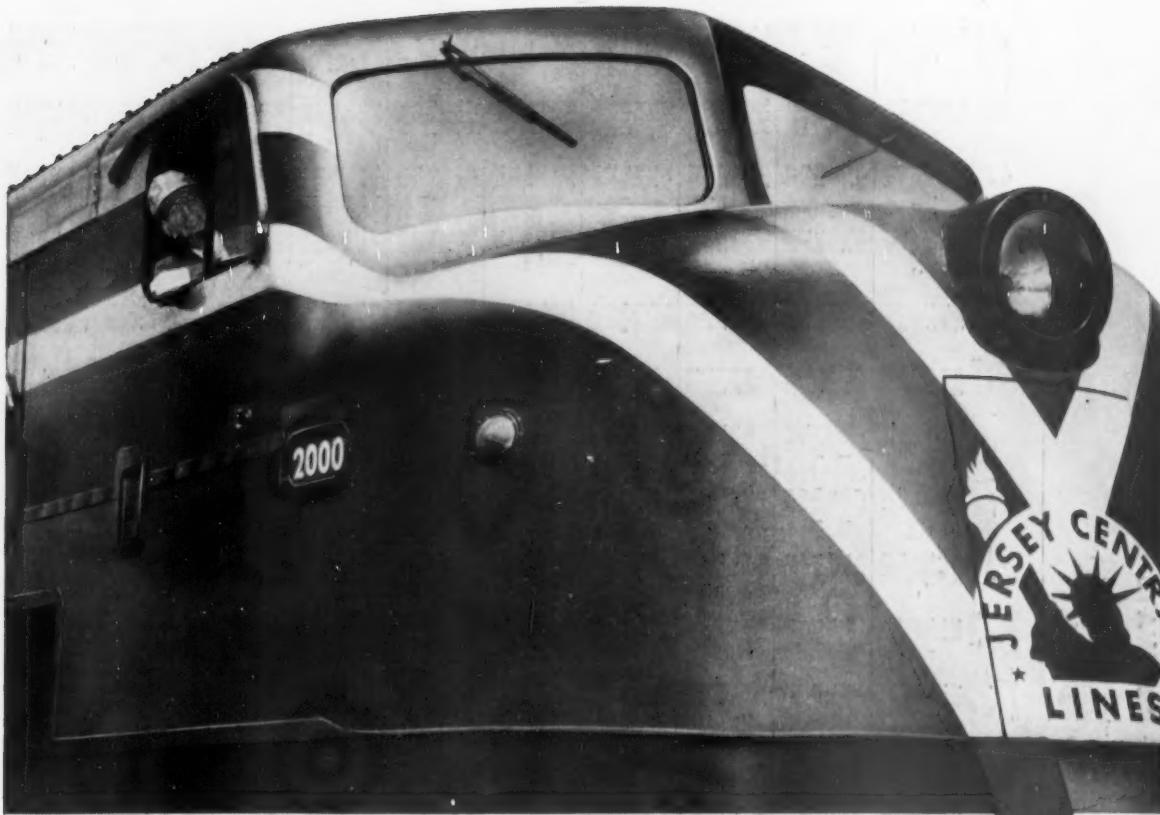
Formerly, considerable time was required to build up wheel flanges by hand welding. They are now restored in 50 minutes by the use of an automatic flange welding machine installed in 1951. Two men can reweld the flanges on four pairs of wheels in an eight-hour shift. A standard lathe is used for finishing the flange and tread contour and grinding the axle journal.

The only maintenance required on the car fleet is occasional replacement of brake shoes, cleaning of air brake equipment and replacement of wheels with excessive flange wear.

Occasional hot journals, due to improperly packed waste or poorly fitted brasses, are now avoided by use of a spring loaded, oil saturated, felt packing and individually fitted journal brasses, blued and scraped prior to installation.

Car mileage is high, approximately 100 miles daily. It is only limited by the time necessary for inspection, loading and unloading of ore.

Cars are loaded by gravity. They are spotted under the storage bins by the hand brakes and then allowed to drift to the loaded car tracks to make up 34-car trains. Hand brake ends of cars are placed together for operation of brakes by one man in gravity movement from the empty car yard to the set out track. Locomotives and cars are never turned.



**"Old 592,"** distinguished veteran of Jersey Central's famous Blue Comet run between New York and Atlantic City, was built in 1901. This Atlantic-type (4-4-2) Camelback had 75" drivers and several times topped 100 mph between New York and Philadelphia. She now rests in glory at the B&O Museum in Baltimore.



## Then...and now...serviced with Esso Railroad Products

The valuable experience of many years in research and development, along with continual testing on-the-road and in-the-lab, stands back of the outstanding performance of famous Esso Railroad Products.

Diesel Fuels  
ESSO ANDOK Lubricants—  
versatile greases  
ARACAR—journal box oils  
ARAPEN—brake cylinder  
lubricant  
ESSO XP Compound—  
hypoid gear lubricant  
DIOL RD—Diesel lube oil

COBLAX—traction motor  
gear lube  
VARSOL—Stoddard Solvent  
SOLVESSO—Aromatic  
solvent  
ESSO Weed Killer  
ESSO Hot Box Compound  
AROX—pneumatic tool lube  
CYLESSO—valve oil

ESSO Journal box compound  
Asphalt  
Cutting Oils  
Rail Joint Compounds  
Maintenance of Way Products  
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Products  
RUST-BAN—corrosion  
preventive

### RAILROAD PRODUCTS

**SOLD IN:** Maine, N. H., Vt., Mass., R. I., Conn., N. Y., N. J., Pa., Del., Md., D. C., Va., W. Va., N. C., S. C., Tenn., Ark., La.

**ESSO STANDARD OIL COMPANY** — Boston,  
Mass. — Pelham, N. Y. — Elizabeth, N. J. —  
Philadelphia, Pa. — Baltimore, Md. — Richmond,  
Va. — Charlotte, N. C. — Columbia, S. C. —  
Memphis, Tenn. — New Orleans, La.

## REVENUES AND EXPENSES OF RAILWAYS

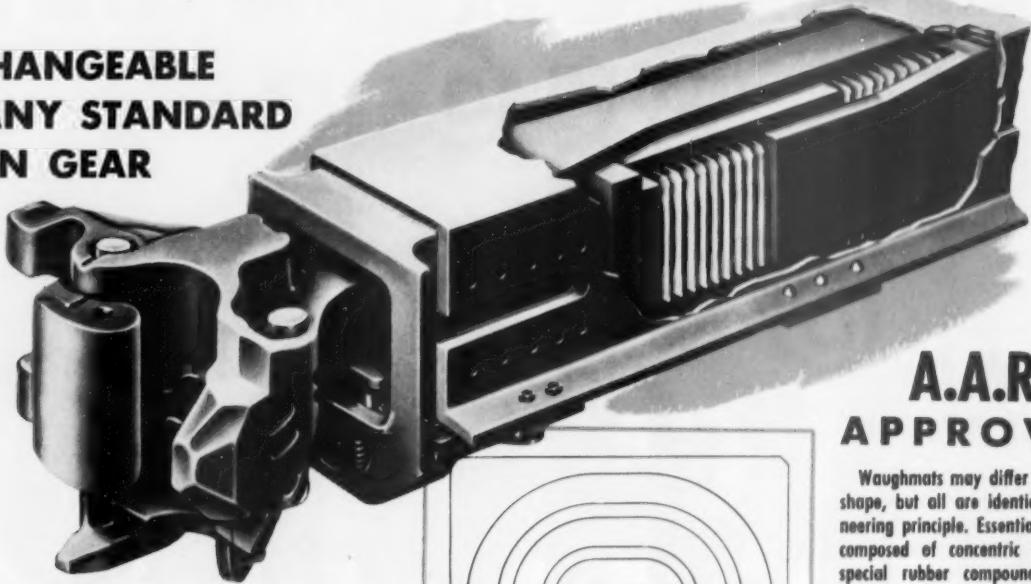
*(Dollar figures are stated in thousands, i.e., with last three digits omitted)*

MONTH OF MAY AND FIVE MONTHS OF CALENDAR YEAR 1954

| Name of Road                                     | Average<br>miles<br>operated<br>during<br>period | Operating Revenues |               |               |                                     | Operating Expenses |               |                             |               | Net<br>from<br>railway<br>accruals | Net railway<br>operating income |        |
|--|--|--------------------|---------------|---------------|-------------------------------------|--------------------|---------------|-----------------------------|---------------|------------------------------------|---------------------------------|--------|
|  |  | Total<br>Panc.     | Total<br>1954 | Total<br>1953 | Total<br>revenue<br>and<br>expenses | Total<br>1954      | Total<br>1953 | Total<br>Traffic<br>tonnage | Total<br>1954 | Total<br>1953                      | Operating<br>ratio              |        |
| Akron, Canton & Youngstown . . . . .             | 171  | \$397              | ... . . . .   | \$406         | \$551                               | \$65               | \$63          | \$415                       | \$38          | \$335                              | 1954                            | 1953   |
| Albion . . . . .                                 | 111  | 2,639              | 51,181        | 39,963        | 46,777                              | 6,237              | 8,012         | 5,617                       | 1,691         | 1,656                              | 59.1                            | 59.1   |
| Atchison, Topeka & Santa Fe . . . . .            | 13,016   | 32,828             | 153,962       | 15,962        | 30,932                              | 37,501             | 32,266        | 8,238                       | 10,138        | 1,367                              | 14,438                          | 13,003 |
| Atlanta & St. Andrews Bay . . . . .              | 13,070   | 17,550             | 15,962        | 15,962        | 30,932                              | 42,259             | 45,668        | 9,501                       | 9,501         | 16,046                             | 17,505                          | 17,505 |
| Atlanta & West Point . . . . .                   | 82   | 1,539              | 1,539         | 1,539         | 1,539                               | 12,24              | 12,29         | 1,314                       | 1,314         | 1,314                              | 45.8                            | 45.8   |
| Atlantic Coast Line . . . . .                    | 93   | 2,266              | 37            | 305           | 365                                 | 41                 | 59            | 6                           | 56            | 15                                 | 140                             | 276    |
| Western of Alabama . . . . .                     | 93   | 1,196              | 169           | 1,888         | 2,299                               | 257                | 341           | 69                          | 69            | 15                                 | 140                             | 311    |
| Charleston & Western Carolina . . . . .          | 133  | 2,264              | 169           | 1,888         | 2,299                               | 257                | 341           | 69                          | 69            | 15                                 | 140                             | 311    |
| Baltimore & Ohio . . . . .                       | 164  | 1,461              | 164           | 1,867         | 1,988                               | 262                | 303           | 39                          | 316           | 351                                | 1,584                           | 1,584  |
| Atlantic & Danville . . . . .                    | 205  | 1,119              | 1,119         | 1,123         | 1,123                               | 140                | 140           | 10                          | 10            | 10                                 | 1,327                           | 1,327  |
| Staten Island Rapid Transit . . . . .            | 29   | 179                | 50            | 233           | 288                                 | 53                 | 57            | 12                          | 28            | 30                                 | 1                               | 124    |
| Baner & Aroostook . . . . .                      | 910  | 254                | 1,178         | 1,469         | 2,118                               | 318                | 50            | 135                         | 159           | 160                                | 1,395                           | 1,395  |
| Reservoir & Lake Erie . . . . .                  | 146  | 2,195              | 1,944         | 2,090         | 2,332                               | 40,804             | 4,747         | 441                         | 6,320         | 8,235                              | 2,917                           | 2,917  |
| Boston & Maine . . . . .                         | 602  | 1,125              | 1,763         | 32,332        | 40,804                              | 3,763              | 5,207         | 441                         | 6,320         | 8,235                              | 2,917                           | 2,917  |
| Cambria & Indiana . . . . .                      | 602  | 1,079              | 1,466         | 1,562         | 18,678                              | 18,678             | 24,064        | 2,431                       | 3,650         | 4,650                              | 12,990                          | 14,920 |
| Canadian Pacific Lines in Maine . . . . .        | 310  | 655                | 110           | 1,195         | 1,934                               | 2,090              | 2,090         | 16                          | 211           | 211                                | 1,178                           | 1,178  |
| Central Vermont . . . . .                        | 1,676  | 26,133             | 6,372         | 34,197        | 37,430                              | 6,390              | 6,302         | 823                         | 1             | 106                                | 1,326                           | 1,326  |
| Central of Georgia . . . . .                     | 90   | 1,764              | 6,72          | 1,108         | 1,144                               | 1,144              | 1,144         | 99                          | 93            | 93                                 | 1,178                           | 1,178  |
| Central of New Jersey . . . . .                  | 613  | 1,403              | 1,403         | 1,403         | 1,403                               | 19,907             | 19,907        | 2,591                       | 3,030         | 3,030                              | 1,195                           | 1,195  |
| Chicago & Illinois Midland . . . . .             | 130  | 649                | 1,470         | 2,223         | 2,701                               | 740                | 85            | 6                           | 108           | 153                                | 2,127                           | 2,127  |
| Chicago & North Western . . . . .                | 422  | 3,876              | 296           | 4,508         | 4,802                               | 903                | 2,029         | 240                         | 190           | 190                                | 1,178                           | 1,178  |
| Chicago, Milwaukee & St. Paul . . . . .          | 5,097  | 113,482            | 3,017         | 122,267       | 140,788                             | 17,995             | 19,640        | 1,873                       | 2,546         | 2,546                              | 1,315                           | 1,315  |
| Chicago, Milwaukee, St. Paul & Pacific . . . . . | 868  | 2,062              | 1,564         | 2,265         | 3,037                               | 3,037              | 4,119         | 497                         | 3,232         | 3,232                              | 2,153                           | 2,153  |
| Chicago Great Western . . . . .                  | 868  | 10,960             | 1,023         | 13,375        | 15,127                              | 1,715              | 1,907         | 140                         | 2,404         | 2,613                              | 1,650                           | 1,650  |
| Chicago, Rock Island & Pacific . . . . .         | 5 mos.   | 1,470              | 1,228         | 6             | 659                                 | 740                | 400           | 431                         | 45            | 421                                | 310                             | 106    |
| Chicago, Indianapolis & Louisville . . . . .     | 5 mos.   | 1,541              | 1,473         | 36            | 13,405                              | 10,253             | 1,928         | 1,691                       | 220           | 2,109                              | 1,306                           | 602    |
| Chicago, Milwaukee & Quincy . . . . .            | 5 mos.   | 7,876              | 12,000        | 1,670         | 25,206                              | 16,994             | 2,370         | 1,316                       | 352           | 2,807                              | 1,261                           | 700    |
| Chicago, Burlington & Quincy . . . . .           | 5 mos.   | 10,639             | 15,564        | 1,239         | 18,922                              | 20,645             | 3,992         | 4,148                       | 457           | 1,127                              | 1,334                           | 893    |
| Chicago, Rock Island & Pacific . . . . .         | 5 mos.   | 10,639             | 17,816        | 5,349         | 93,363                              | 10,472             | 14,969        | 15,536                      | 2,074         | 20,999                             | 22,919                          | 4,355  |
| Chicago, St. Paul, Minn. & Omaha . . . . .       | 5 mos.   | 1,616              | 1,616         | 1,616         | 1,616                               | 2,490              | 2,610         | 4,044                       | 524           | 2,148                              | 1,421                           | 1,421  |
| Chicago, Milwaukee & St. Paul . . . . .          | 5 mos.   | 10,951             | 12,666        | 12,666        | 13,396                              | 12,219             | 12,219        | 240                         | 1,930         | 3,311                              | 946                             | 946    |
| Chicago, Rock Island & Pacific . . . . .         | 5 mos.   | 317                | 1,652         | 2             | 1,660                               | 3,844              | 1,284         | 1,322                       | 20            | 1,161                              | 1,775                           | 98     |

# Put these WAUGHMAT SINGLE ACTION Twin Cushions right in your pockets!

**INTERCHANGEABLE  
WITH ANY STANDARD  
FRICTION GEAR**



Now you can replace worn friction gears with high capacity rubber gears . . . the new Waughmat Single-Action Twin Cushion. Use any standard yoke and follower block. Just replace the gear.

The Waughmat Single-Action Twin Cushion is delivered pre-compressed ready for application. Needs no jigs, jacks or special preparation.

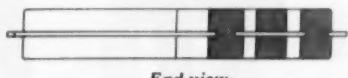
Now, at moderate extra cost cars and lading can have the extra protection afforded by rubber cushioning — Waughmat cushioning.

Inquiry is invited.

OFFICIAL CAPACITY  
AT NOMINAL TRAVEL  
**28,500 ft. lbs.**  
AVAILABLE CAPACITY  
WITHOUT METAL CONTACT  
**51,600 ft. lbs.**



Cut away section of Waughmat showing holes in plate.



End view



Partly compressed under light loads.



Compressed under heavy loads.

## A.A.R. APPROVED

Waughmats may differ in size and shape, but all are identical in engineering principle. Essentially, each is composed of concentric rings of a special rubber compound on both sides of a steel plate. Rings are not bonded to the plate but through the plate. The space between the rings is designed to permit the proper deformation of the rubber over the plate area when under compression.

If the rubber was in a solid slab instead of in concentric rings, the only deformation that could occur under compression would be at the outer edges, as rubber is non-compressible within itself.

Rings are bonded through the plate instead of to the plate because, if bonded to the plate, the only absorption would be the molecular friction within the rubber itself. By bonding through the plate, absorption is greatly increased due to the roll or flow of rubber over the plate surface.

The design, the composition of the rubber, and the application to railroad equipment of Waughmats have been proven by more than 25 years of satisfactory service on American Railroads.



Front Group Waughmat



Rear Group Waughmat

WAUGH EQUIPMENT COMPANY, New York • Chicago • St. Louis • Canadian Waugh Equip. Co., Montreal

**"Windows" Mean  
Adlake  
Breather Windows  
TO ALL  
American Railroads**



## ...and here are the reasons why:

**Railroad Managements Know**...that on an overall cost and operation basis, ADLAKE Windows are the most economical on the market. They literally pay for themselves by reducing service expenses throughout their long life. Their "passenger appeal" is a valuable plus that pays off in passenger traffic.

**Mechanical Officials Know**...that today, ADLAKE "Breather" windows installed nearly 20 years ago are as good as new...that they require no maintenance other than routine washing...keep their good looks and perfect seal indefinitely!

**Maintenance Men Know**...that in an ADLAKE Window, glass which has been broken in service can be

replaced right on the railroad's own property...and that with the ADLAKE "Breather" unit their window troubles are at an end.

**Traffic Executives Know**...that passengers want to see the scenery their railroad advertises. And passengers *always will* see it clearly, regardless of changes in temperature, altitude or humidity, when they are looking through an ADLAKE "Breather" Window.

### THE ADLAKE "BREATHER" WINDOW

...is the result of 97 years of designing and manufacturing experience produced by skilled and experienced personnel in a plant covering more than 10 acres. Don't settle for less than ADLAKE...the original "Breather" Window!



THE Adams & Westlake COMPANY

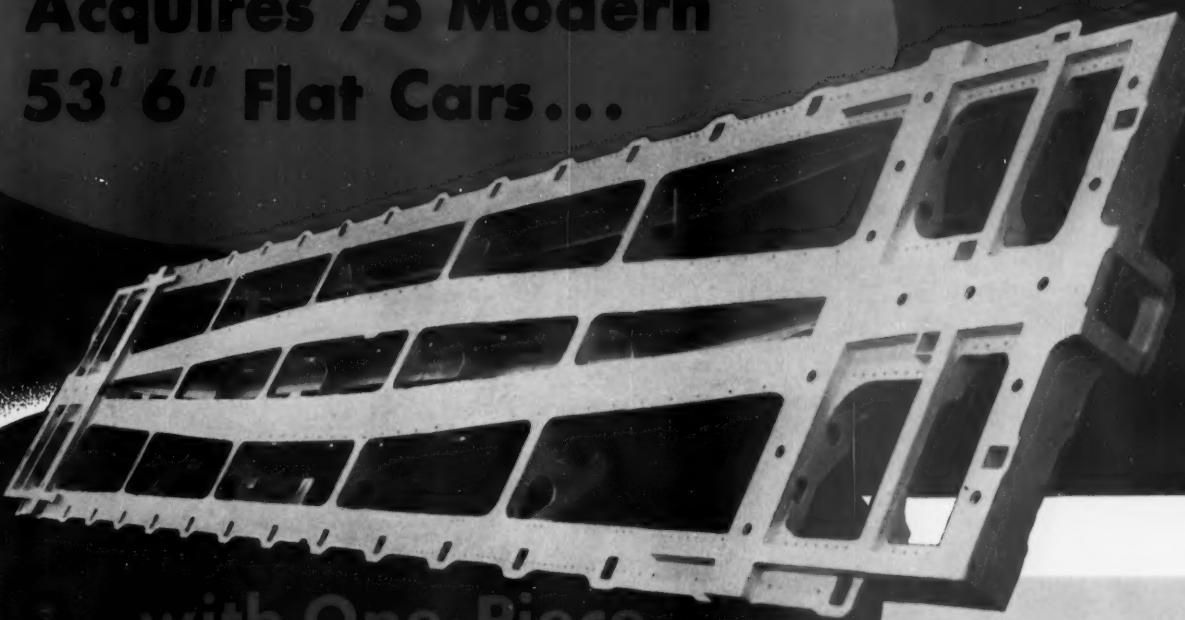
Established 1857 • ELKHART, INDIANA • New York • Chicago

Manufacturers of ADLAKE Specialties and Equipment for the Railway Industry

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

# Southern Railway Acquires 75 Modern 53' 6" Flat Cars...



...with One-Piece  
Cast Steel Underframes

Commonwealth One-Piece Underframe  
70-ton capacity flat car

A lot of 75 up-to-date 70-ton flat cars for the Southern Railway features Commonwealth One-Piece Cast Steel Underframes and roller bearings. Latest design One-Piece Underframes provide the following important advantages:

- Lowest height from rail to top of decking.
- One-piece casting provides greater strength at less weight and eliminates maintenance.
- Flared center sills and wide top members provide better support for decking and loads.

- Unusually strong draft sills, draft pockets and bolsters.
- Auxiliary sills between bolsters and end sills provide for anchoring of upright ends.
- Highest resistance to corrosion.

Commonwealth Cast Steel Underframes result in maximum availability of cars, and equipment that is *as maintenance-free as cars can be.*



Car built by Thrall Car Manufacturing Co.



## GENERAL STEEL CASTINGS

GRANITE CITY, ILL.

EDDYSTONE, PA.

## REVENUES AND EXPENSES OF RAILWAYS

*(Dollar figures are stated in thousands, i.e., with last three digits omitted)*

MONTH OF MAY AND FIVE MONTHS OF CALENDAR YEAR 1954

| Name of Road                        | Average<br>milesage<br>operated<br>during<br>period | Operating Revenues— |        |        | Operating Expenses— |         |        | Net<br>from<br>railway<br>operation | Net railway<br>tax operating income<br>accrued 1954 |
|-------------------------------------|---|---------------------|--------|--------|---------------------|---------|--------|-------------------------------------|---|
|                                     |   | Total               | Fare   | Pass.  | Total               | Traffic | Trans- | Total                               |   |
| Louisiana & Arkansas                | 5 mos.  | 752                 | 2,602  | 47     | 1954                | 1953    | 1954   | 1953                                | 1953  |
| Louisville & Nashville              | 5 mos.  | 752                 | 10,316 | 281    | 11,017              | 2,127   | 2,602  | 2,425                               | 566   |
| Maine Central                       | 5 mos.  | 715                 | 13,115 | 402    | 12,344              | 1,450   | 1,870  | 115                                 | 517   |
| Maine Central                       | 5 mos.  | 715                 | 4,733  | 72,102 | 15,555              | 19,728  | 228    | 3,666                               | 2,906   |
| Maine Central                       | 5 mos.  | 944                 | 8,829  | 465    | 11,045              | 9,829   | 13,479 | 1,127                               | 1,163   |
| Midland Valley                      | 5 mos.  | 334                 | 1,444  | 147    | 1,080               | 226     | 43     | 42                                  | 106   |
| Minneapolis & St. Louis             | 5 mos.  | 1,397               | 1,610  | 3      | 1,678               | 905     | 297    | 27                                  | 1,790   |
| Missouri-Kansas-Texas Lines         | 5 mos.  | 3,241               | 6,685  | 19     | 8,233               | 6,653   | 1,376  | 1,577                               | 1,668   |
| Missouri-Kansas-Texas Lines         | 5 mos.  | 3,241               | 2,854  | 71     | 3,117               | 3,337   | 894    | 994                                 | 1,000   |
| Mississippi Central                 | 5 mos.  | 3,222               | 12,408 | 290    | 13,583              | 14,474  | 3,215  | 2,086                               | 2,099   |
| Mississippi Central                 | May   | 148                 | 990    | 100    | 1,010               | 1,174   | 995    | 66                                  | 1,092   |
| Missouri Illinois                   | 5 mos.  | 172                 | 438    | ...    | 441                 | 527     | 673    | 11                                  | 120   |
| Missouri Illinois                   | May   | 2,635               | 2,083  | 227    | 2,099               | 2,477   | 373    | 384                                 | 390   |
| Gulf Coast Lines                    | 5 mos.  | 3,211               | 25,355 | 1,283  | 30,014              | 26,620  | 4,530  | 5,160                               | 5,200   |
| Missouri Pacific                    | 5 mos.  | 6,921               | 13,621 | 836    | 16,108              | 19,091  | 2,960  | 3,772                               | 3,901   |
| International-Great Northern        | 5 mos.  | 6,922               | 73,715 | 3,934  | 86,194              | 99,247  | 19,933 | 18,372                              | 19,347  |
| Nashville, Chattanooga & St. Louis  | 5 mos.  | 1,103               | 2,314  | 130    | 2,660               | 3,109   | 520    | 744                                 | 744   |
| Gulf Coast Lines                    | May   | 1,724               | 3,311  | 654    | 11,501              | 12,261  | 16,443 | 2,505                               | 2,613   |
| Monongahela                         | 5 mos.  | 177                 | 2,367  | ...    | 2,384               | 3,734   | 682    | 433                                 | 413   |
| Montour                             | 5 mos.  | 51                  | 135    | 135    | 147                 | 241     | 13     | 46                                  | 39  |
| Nashville, Chattanooga & St. Louis  | May   | 51                  | 695    | 122    | 752                 | 1,041   | 79     | 140                                 | 12  |
| New York Central                    | 5 mos.  | 1,032               | 13,027 | 635    | 15,421              | 17,207  | 5,259  | 4,272                               | 4,318   |
| Pittsburgh & Lake Erie              | 5 mos.  | 1,770               | 41,403 | 8,434  | 57,529              | 69,766  | 9,533  | 9,224                               | 9,224   |
| New York, Chicago & St. Louis       | 5 mos.  | 221                 | 2,455  | 310    | 2,416               | 2,699   | 4,377  | 4,366                               | 4,366   |
| New York, New Haven & Hartford      | 5 mos.  | 1,770               | 34,810 | 19,952 | 42,176              | 42,340  | 41,366 | 46,476                              | 46,500  |
| New York Connecting                 | 5 mos.  | 221                 | 2,471  | 55     | 2,669               | 4,577   | 409    | 553                                 | 553   |
| New York, Ontario & Western         | 5 mos.  | 541                 | 501    | 501    | 1,203               | 1,323   | 324    | 1,512                               | 1,505   |
| New York, Susquehanna & Western     | May   | 120                 | 430    | 36     | 485                 | 500     | 50     | 62                                  | 65  |
| Norfolk & Western                   | 5 mos.  | 2,135               | 12,973 | 289    | 13,855              | 15,813  | 2,657  | 2,362                               | 2,362   |
| Norfolk Southern                    | 5 mos.  | 620                 | 766    | 310    | 1,628               | 66,799  | 75,775 | 10,925                              | 11,503  |
| Norfolk Southern                    | May   | 620                 | 3,940  | ...    | 775                 | 833     | 1,066  | 1,022                               | 1,022   |
| Northern Pacific                    | 5 mos.  | 120                 | 2,079  | 953    | 12,491              | 13,792  | 1,457  | 2,331                               | 2,331   |
| Pennsylvania                        | 5 mos.  | 10,051              | 54,995 | 10,374 | 72,847              | 91,356  | 8,376  | 12,565                              | 12,565  |
| Pennsylvania Reading Seashore Lines | 5 mos.  | 358                 | 2,867  | 549    | 3,504               | 3,671   | 1,207  | 1,072                               | 1,072   |

J.B.

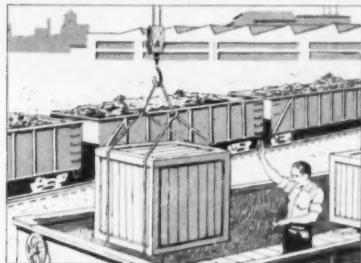
With our new N-S-F floors  
we're handling more freight  
with fewer cars —  
cutting operating costs —  
preventing claims.

Shippers like

N-S-F



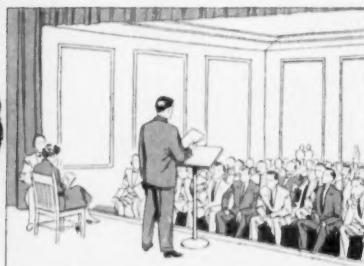
Railroads attempt to keep up floor care. But they're squeezed by rising labor costs, and loss of revenue during repairs. The positive solution: N-S-F—NAILABLE STEEL FLOORING.



In gondolas N-S-F supplies the impact- and wear-resistance of steel, and adds nailability. It does away with the need for different type gondolas for rough and finished loads.



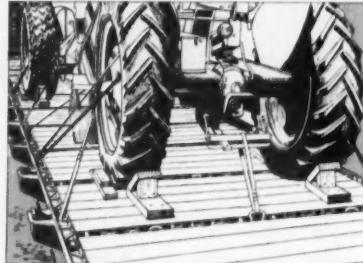
NAILABLE STEEL FLOORING is made of low-alloy N-A-X HIGH-TENSILE steel—remarkably strong, corrosion-resistant—formed into channels, and welded together to form a unique nailing groove. Nail is clinched in a tight grip of steel, yet can be easily removed.



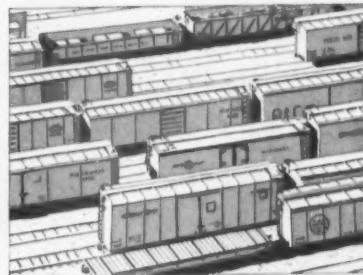
When traffic managers discuss matters affecting car supply, a recurring topic is inadequate flooring. Floor failures cause freight damage, limit use of mechanical equipment.



NAILABLE STEEL FLOORING provides a dependable, trouble-free surface that withstands repeated nailings and affords the best possible security for all kinds of freight.



On flatcars equipped with NAILABLE STEEL FLOORING, loads can be blocked with nails—and can have the added security of straps or wires fastened to multi-position fixtures.



Seriousness of the problem, as Railroad Shippers' Advisory Boards point out, is reflected in the number of cars rejected by shippers as unsuitable for safe transportation of freight.



In addition, N-S-F withstands the strain of mechanical loading devices. And—like no other car floor—it actually adds strength at critical points of the car structure.



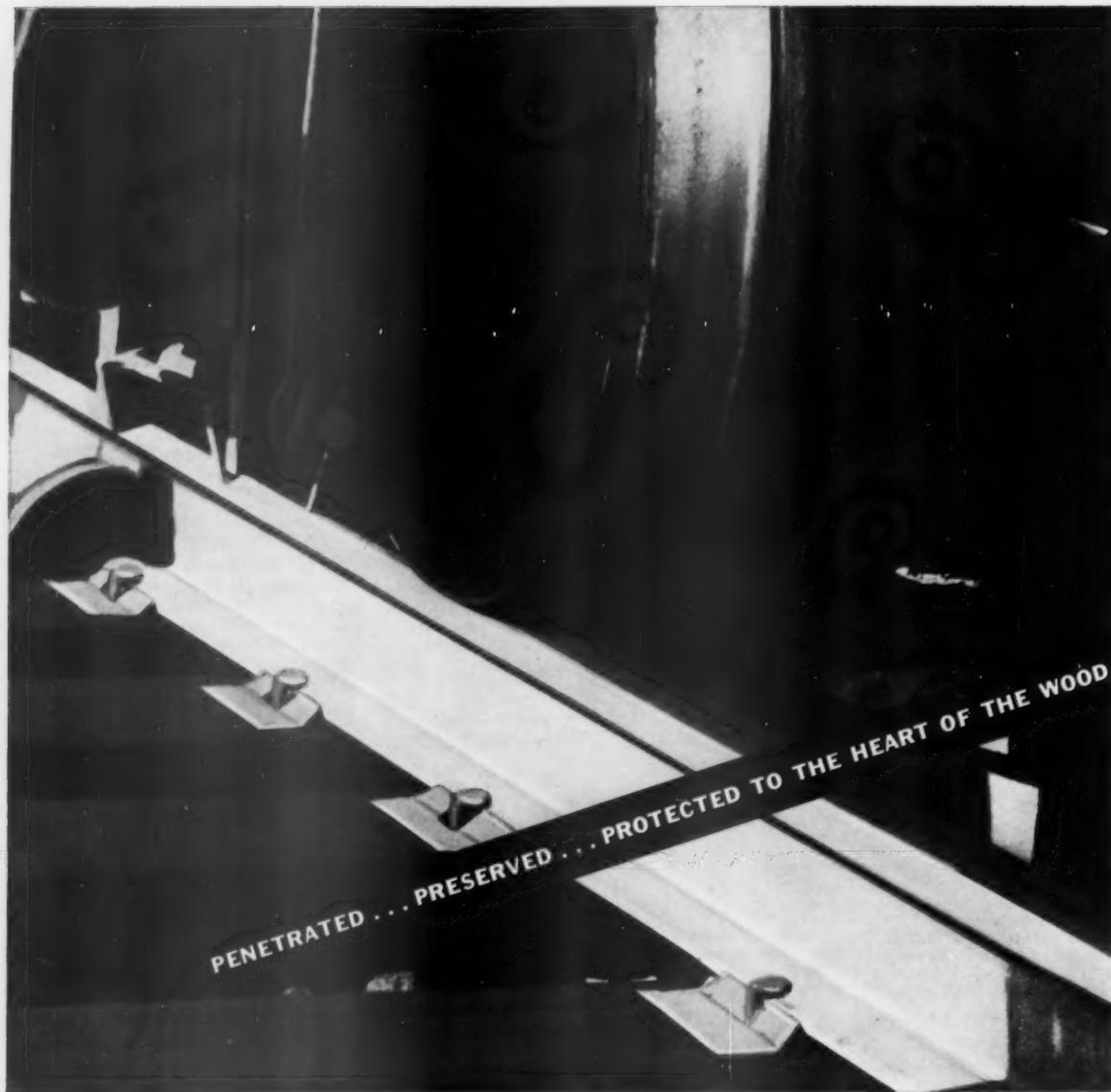
Car departments can show that N-S-F, already installed in over 16,000 cars, far more than repays its higher initial cost, successfully meets shippers' needs, attracts more freight.

COMPLETE engineering and cost data available from Great Lakes Steel Corporation, Steel Floor Division, Ecorse, Detroit 29, Michigan. Sales representatives in Chicago, Philadelphia, St. Louis, Atlanta, Omaha, Denver, San Francisco, Montreal and New York.

**GREAT LAKES STEEL CORPORATION**

NATIONAL STEEL CORPORATION

64-SF-1B



## treated to take it

Ties treated with Barrett Coal-Tar Creosote get proved protection...life expectancy of over 30 years.

Ties, poles and piling are a BIG investment. They deserve the protection of Coal-Tar Creosote—the wood preservative that has been proved in the test of time. In use for over 100 years. You don't take risks when you specify Barrett—time-tested leader in the field of Coal-Tar wood preservatives.

Check these advantages—

- tested and proved by over 100 years' experience
- defies rot, insects, marine borers
- does not react with wood to impair strength
- weather-proved in all climates
- retards checking and brooming

BARRETT DIVISION, Allied Chemical & Dye Corporation, 40 Rector St., N. Y. 6, N. Y.



100 YEARS OF EXPERIENCE



### **BARRETT CREOSOTE**

\* Reg. U. S. Pat. Off.

## REVENUES AND EXPENSES OF RAILWAYS

*(Dollar figures are stated in thousands; i.e., with last three digits omitted)*  
MONTH OF MAY AND FIVE MONTHS OF CALENDAR YEAR 1954

Cut here to fit.

| Name of Road                       | Average mileage operated during period |       |         |        |                    |        |       |        |             |       | Operating Revenues |       |        |       |       |       |                 |       |                  |       | Operating Expenses           |       |       |
|------------------------------------|--|-------|---------|--------|--------------------|--------|-------|--------|-------------|-------|--------------------|-------|--------|-------|-------|-------|-----------------|-------|------------------|-------|------------------------------|-------|-------|
|                                    | Freight                                |       | Pass.   |        | Total (inc. misc.) |        | Total |        | Retirements |       | Total              |       | Trans. |       | Total |       | Operating ratio |       | from railway tax |       | Net railway operating income |       |       |
|                                    | 1954                                   | 1953  |         | 1954   | 1953               |        | 1954  | 1953   |             | 1954  | 1953               |       | 1954   | 1953  |       | 1954  | 1953            |       | 1954             | 1953  |                              | 1954  | 1953  |
| Pittsburg & Shawmut                | 153                                    | 156   | 213     | 33     | 46                 | 4      | 38    | 55     | 12          | 4     | 36                 | 125   | 169    | 80.0  | 79.2  | 31    | 5               | 60    | 67               | 333   | 1954                         | 1953  |       |
| Pittsburgh & West Virginia         | 97                                     | 83.2  | 83.7    | 98.0   | 64.8               | 5.2    | 220   | 18     | 59          | 22    | 22                 | 76.2  | 81.9   | 7.2   | 7.7   | 199   | 1954            | 1953  | 300              | 327   | 121                          | 164   | 125   |
| Sacramento Northern                | 132                                    | 64.8  | 3.022   | 65.2   | 87.0               | 104    | 137   | 24     | 174         | 36    | 60                 | 171   | 91.1   | 7.52  | 7.9   | 67.9  | 71.1            | 155   | 123              | 125   | 147                          | 63.9  | 62.9  |
| Reading                            | 132                                    | 3.008 | 3.022   | 3.022  | 85.2               | 60.4   | 117   | 608    | 180         | 306   | 84.4               | 3.292 | 2.855  | 7.92  | 7.41  | 63.0  | 67.8            | 154   | 125              | 125   | 147                          | 63.9  | 62.9  |
| Richmond, Fredericksburg & Potomac | 5 mos.                                 | 1.306 | 40.291  | 5.68   | 7.09               | 11.462 | 1.29  | 1.731  | 2.257       | 441   | 154                | 3.641 | 7.032  | 8.683 | 80.7  | 75.8  | 1.677           | 1.384 | 1.016            | 1.548 | 1.548                        | 1.548 | 1.548 |
| St. Louis-San Francisco            | 5 mos.                                 | 118   | 7.26    | 2.709  | 11.59              | 12.487 | 1.504 | 1.824  | 1.24        | 1.689 | 518                | 2.533 | 1.774  | 1.558 | 1.622 | 64.8  | 77.9            | 3.35  | 3.27             | 1.632 | 1.407                        | 1.407 | 1.407 |
| Rutherford                         | 5 mos.                                 | 39.2  | 3.32    | 3.368  | 4.21               | 2.286  | 3.69  | 3.3    | 2.6         | 3.02  | 350                | 61    | 115    | 1.723 | 2.082 | 90.5  | 89.5            | 39    | 24               | 1.682 | 1.407                        | 1.407 | 1.407 |
| St. Louis-San Francisco & Texas    | 5 mos.                                 | 159   | 1.677   | —2     | 1.878              | 2.00   | 1.808 | 2.362  | 2.14        | 1.65  | 194                | 5     | 130    | 1.52  | 1.324 | 75.7  | 78.6            | 35    | 24               | 1.682 | 1.407                        | 1.407 | 1.407 |
| St. Louis-Southern Lines           | 5 mos.                                 | 264   | 1.677   | —2     | 1.90               | 2.11   | 67    | 61     | 4           | 9     | 394                | 680   | 107    | 168   | 1.514 | 1.345 | 72.2            | 62.2  | 33               | 18    | 1.514                        | 1.345 | 1.345 |
| Seaboard Air Line                  | 5 mos.                                 | 4.601 | 8.315   | 4.55   | 2.337              | 2.503  | 322   | 334    | 304         | 70    | 350                | 111   | 1.723  | 1.782 | 7.989 | 66.7  | 64.0            | 3.35  | 3.27             | 1.632 | 1.407                        | 1.407 | 1.407 |
| Southern                           | 5 mos.                                 | 4.078 | 5.947   | 9.61   | 1.046              | 10.864 | 1.543 | 1.667  | 1.59        | 1.611 | 521                | 383   | 3.774  | 3.774 | 82.8  | 75.2  | 1.632           | 1.407 | 1.407            | 1.407 | 1.407                        | 1.407 | 1.407 |
| Alabama Great Southern             | 5 mos.                                 | 326   | 1.562   | 1.684  | 20                 | 1.808  | 3.40  | 3.40   | 3.40        | 3.40  | 350                | 121   | 1.723  | 1.723 | 75.7  | 78.6  | 35              | 24    | 1.682            | 1.407 | 1.407                        | 1.407 |       |
| Cinn. New Orleans & Tex. Pac.      | May                                    | 337   | 3.167   | 1.22   | 3.495              | 4.328  | 480   | 461    | 44          | 518   | 740                | 86    | 75     | 904   | 2.125 | 60.8  | 54.9            | 1.370 | 1.332            | 1.978 | 2.198                        | 2.198 | 2.198 |
| Georgia Southern & Florida         | May                                    | 337   | 15.812  | 808    | 17.810             | 20.538 | 2.402 | 2.233  | 2.09        | 3.111 | 407                | 681   | 3.48   | 3.48  | 71.4  | 69.0  | 3.731           | 3.27  | 1.632            | 1.407 | 1.407                        | 1.407 | 1.407 |
| New Orleans & Northeastern         | May                                    | 397   | 3.313   | 403    | 4.147              | 4.088  | 351   | 150    | 173         | 8     | 373                | 244   | 4.177  | 4.177 | 82.8  | 75.7  | 59.7            | 50.0  | 1.682            | 1.407 | 1.407                        | 1.407 | 1.407 |
| Spokane-International              | May                                    | 203   | 870     | 37     | 993                | 1.224  | 1.224 | 1.224  | 1.224       | 1.224 | 1.224              | 1.224 | 1.224  | 1.224 | 1.224 | 1.224 | 1.224           | 1.224 | 1.224            | 1.224 | 1.224                        | 1.224 |       |
| Southern Pacific                   | May                                    | 8119  | 36.004  | 2.524  | 41.228             | 41.192 | 4.897 | 5.455  | 5.35        | 6.058 | 9.316              | 825   | 1.853  | 1.853 | 82.8  | 79.9  | 54.9            | 54.9  | 1.632            | 1.407 | 1.407                        | 1.407 | 1.407 |
| Texas & New Orleans                | May                                    | 266   | 167.363 | 13.115 | 16.660             | 25.416 | 2.021 | 27.134 | 2.021       | 2.021 | 4.714              | 524   | 1.214  | 1.214 | 1.214 | 1.214 | 1.214           | 1.214 | 1.214            | 1.214 | 1.214                        | 1.214 |       |
| Tennessee Central                  | May                                    | 266   | 1.328   | 332    | 11.393             | 13.128 | 1.740 | 1.833  | 2.18        | 1.846 | 518                | 479   | 9.063  | 9.063 | 82.8  | 79.9  | 54.9            | 54.9  | 1.632            | 1.407 | 1.407                        | 1.407 | 1.407 |
| Texas & Northern                   | May                                    | 239   | 1.51    | 2.991  | 3.027              | 3.027  | 2.862 | 2.862  | 2.862       | 2.862 | 2.862              | 2.862 | 2.862  | 2.862 | 2.862 | 2.862 | 2.862           | 2.862 | 2.862            | 2.862 | 2.862                        | 2.862 |       |
| Union Pacific                      | May                                    | 1.832 | 28.563  | 305    | 6.430              | 7.229  | 1.031 | 1.060  | 98          | 699   | 1.275              | 2.43  | 1.95   | 1.95  | 2.150 | 4.722 | 5.225           | 73.4  | 76.5             | 4.664 | 3.126                        | 3.126 | 3.126 |
| Texas Mexican                      | May                                    | 161   | 2.337   | 2.514  | 2.514              | 2.514  | 4.44  | 4.44   | 4.44        | 4.44  | 4.44               | 4.44  | 4.44   | 4.44  | 4.44  | 4.44  | 4.44            | 4.44  | 4.44             | 4.44  | 4.44                         | 4.44  |       |
| Toledo, Peoria & Western           | May                                    | 152   | 2.26    | 2.289  | 2.289              | 2.289  | 2.289 | 2.289  | 2.289       | 2.289 | 2.289              | 2.289 | 2.289  | 2.289 | 2.289 | 2.289 | 2.289           | 2.289 | 2.289            | 2.289 | 2.289                        | 2.289 |       |
| Virginian                          | May                                    | 8     | 363     | 383    | 645                | 22     | 22    | 1      | 41          | 36    | 13                 | 5     | 44     | 149   | 1.388 | 1.388 | 2.848           | 57.6  | 50.1             | 1.295 | 1.295                        | 1.295 | 1.295 |
| Wabash                             | May                                    | 2.393 | 7.675   | 338    | 8.716              | 9.787  | 1.400 | 1.67   | 1.400       | 1.400 | 1.400              | 1.400 | 1.400  | 1.400 | 1.400 | 1.400 | 1.400           | 1.400 | 1.400            | 1.400 | 1.400                        | 1.400 |       |
| Utah                               | May                                    | 110   | 1.51    | 1.51   | 1.51               | 1.51   | 1.470 | 1.470  | 1.470       | 1.470 | 1.470              | 1.470 | 1.470  | 1.470 | 1.470 | 1.470 | 1.470           | 1.470 | 1.470            | 1.470 | 1.470                        | 1.470 |       |
| Western Pacific                    | May                                    | 9.816 | 31.648  | 2.437  | 36.918             | 41.367 | 4.939 | 6.150  | 506         | 7.035 | 8.271              | 1.484 | 1.484  | 1.484 | 1.484 | 1.484 | 1.484           | 1.484 | 1.484            | 1.484 | 1.484                        | 1.484 |       |
| Western Maryland                   | May                                    | 857   | 16.699  | 16     | 1.581              | 2.113  | 2.082 | 2.082  | 2.082       | 2.082 | 2.082              | 2.082 | 2.082  | 2.082 | 2.082 | 2.082 | 2.082           | 2.082 | 2.082            | 2.082 | 2.082                        | 2.082 |       |
| Western Pacific                    | May                                    | 1.193 | 3.610   | 2.24   | 3.298              | 5.066  | 6.692 | 8.57   | 91          | 1.359 | 1.359              | 1.359 | 1.359  | 1.359 | 1.359 | 1.359 | 1.359           | 1.359 | 1.359            | 1.359 | 1.359                        |       |       |
| Wisconsin Central                  | May                                    | 1.103 | 1.760   | 9.97   | 1.510              | 2.145  | 3.759 | 4.67   | 4.67        | 4.67  | 4.67               | 4.67  | 4.67   | 4.67  | 4.67  | 4.67  | 4.67            | 4.67  | 4.67             | 4.67  | 4.67                         | 4.67  |       |

# flame can clean this better, faster, cheaper!

Paint loss and corrosion like that on the steel girder above can be removed easily and efficiently. Shown below is the same girder after flame cleaning and wire brushing down to its natural surface, all set for repainting.



On bridges, flame cleaning removes moisture that lifts paint and oxidizes surfaces.



On cars, flame cleaning makes it easy to clean unusual contours and inaccessible areas.



On rail ends, portable, flexible flame cleaning apparatus saves time and labor on the job.

On rail joints, cars and structures, **AIRCO** Flame Cleaning removes surface moisture while it cleans . . . makes new paint last longer.

Just look at the paint-lift, scale and rust on the small section of a girder above. Now look at the inset picture to see the same girder smooth, clean, dry and ready to receive a lasting paint coat. That's what Airco oxyacetylene flame cleaning plus a simple wire brush can do on any rail joint, car or structure — and what it does better, faster and cheaper than any other mechanical method. Here's why!

**Airco Flame Cleaning is better** because it removes surface moisture as it removes scale, rust and other extraneous matter . . . providing the best surface for a lasting job when paint is applied to the warm dry metal.

**Airco Flame Cleaning is faster** because only flame will cockle scale and rust so quickly, at the same time facilitating the cleaning of hard-to-get-at areas.

**Airco Flame Cleaning is economical** because you get longer lasting paint jobs than ever before possible with old-fashioned cleaning methods. The apparatus itself is portable and easy to handle.

If you have an overhaul job coming up, investigate Airco's flame cleaning process — there is no better mechanical method for a lasting paint job. For more information contact your nearest Airco office.

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**PASSENGERS LIKE** the comforts of improved coach facilities. Good lighting and air-conditioning create goodwill and repeat business. When dependable Exide-Ironclad batteries are on the job your customers get the traveling comforts you are providing. Exides are built to withstand hard, continu-

ous service. They give worry-free performance and maintain high, uniform voltage throughout long stops. Also, because of lower costs for operation, maintenance and depreciation Exide-Ironclad batteries are your best power buy . . . AT ANY PRICE!



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**IMPROVED** Exide-Ironclads now have power tubes made from non-oxidizing plastic for longest battery life. For full details, call your Exide sales engineer—write for Form 5010 (Installation and Maintenance of Car Lighting and Air Conditioning Batteries).

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...AT ANY PRICE!**

**Exide<sup>®</sup>**  
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**Exide INDUSTRIAL DIVISION,** The Electric Storage Battery Company, Philadelphia 2, Pa.

## Equipment & Supplies

(Continued from page 12)  
electric and 18 gas turbine-electric locomotives.

The Great Northern will build, in its own shops, 25 70-ton gondolas for steel loading. The 65-ft cars will cost about \$195,000.

### FREIGHT CARS

#### 2,650 Freight Cars Delivered in June

New freight cars delivered in June totaled 2,650, compared with 3,173 in May and 6,463 in June 1953, the American Railway Car Institute and the Association of American Railroads have announced jointly.

Orders for 1,139 freight cars were placed in June, the announcement added, and the backlog of cars on order and undelivered July 1 was 13,869, compared with 15,615 on June 1. A breakdown by type of cars ordered and delivered in June, and of cars on order July 1, follows:

| Type           | Ordered June '54 | Delivered June '54 | On Order July 1, '54 |
|----------------|------------------|--------------------|----------------------|
| Box-Plain      | 841              | 703                | 5,906                |
| Box-Auto       | 0                | 0                  | 1,000                |
| Flat           | 0                | 168                | 643                  |
| Gondola        | 0                | 96                 | 140                  |
| Hopper         | 50               | 394                | 691                  |
| Covered Hopper | 50               | 120                | 650                  |
| Refrigerator   | 0                | 749                | 2,825                |
| Tank           | 194              | 402                | 1,674                |
| Caboose        | 4                | 12                 | 73                   |
| Other          | 0                | 6                  | 258                  |
| <b>TOTAL</b>   | <b>1,129</b>     | <b>2,650</b>       | <b>13,860</b>        |
| Car Builders   | 1,010            | 1,230              | 4,818                |
| Railroad Shops | 129              | 1,420              | 9,042                |

### Abandonments

#### Authorizations

**BLACK MOUNTAIN**.—To abandon its entire line, from Kona, N. C., to Burnsville, and including a branch from Micaville to Bowditch, a total of 12.83 miles. The authorization came in a commission report on reconsideration, reversing a prior decision by Division 4, which had denied the application (*Railway Age*, December 14, 1953, page 124). The present report drew a dissent from Commissioner Mahaffie, with whom Chairman Johnson agreed.

**JACKSONVILLE NORTHWESTERN**.—To abandon operation of 6 miles of main line and 6.4 miles of switching tracks in Jacksonville, Ark. The line has been leased from the federal government, which now desires to make it part of an Air Force base.

**LEHIGH VALLEY**.—To abandon a section of its Bowman Creek branch between Dushore, Pa., and Bernice, 8.5 mi.

**LOUISVILLE & NASHVILLE**.—To abandon a 2.16 line from Valuation Station, Ky., to Adalia.

**NORFOLK SOUTHERN**.—To abandon, as of July 1, the end portion of its North Beach route, from Shelton Station, Va., to Fort Story, approximately 9 miles.

To abandon a 6.2-mile line between Plainview, N. C., and Ellerbe. The line is part of a 17.5-mile branch, all of which the road sought to abandon in an application filed more than three years ago, in March 1951. The commission's decision, embodied in a report on further hearing, denied the application insofar as it sought authority to abandon the 11.3-mile section of the

branch between Cander and Plainview. Commissioner Mitchell, concurring in the result of the majority report, thought the application should have been granted in full. Commissioners Mahaffie and Aldredge, in separate dissents, said the whole application should have been denied.

**OHIO & MORENCI**.—To abandon its entire 1.7-mile line at Blissfield, Mich.

**PENNSYLVANIA**.—To abandon car-float operations across New York's upper bay between Harmsimus Cove, Jersey City, N. J., and North Fourth street, Brooklyn, N. Y. PRR's station and other waterfront facilities at the latter point also will be abandoned, but some will be taken over by the Brooklyn Eastern District Terminal, which operates adjacent facilities.

To abandon ferry service across Chesapeake Bay between Cape Charles, Va., and Norfolk, Chicago & St. Louis. The latter got authority to abandon the line.

**RED RIVER & GULF**.—To abandon its entire line, approximately 13 miles, from LeCompte, La., to a point known as Louisiana Junction. The only industry served by the line, a lumber company, will continue to have rail service, via the Missouri Pacific.

**ST. LOUIS & O'FALLON**.—To abandon its entire 8.9-mile line from East St. Louis, Ill., to Black Eagle and 8.7 miles of siding and yard tracks. Earnings of this road were so good in the 'twenties they provided basis for a leading case under former "recapture" provisions of the Interstate Commerce Act.

**SEABOARD AIR LINE**.—To abandon a 13.7-mile segment of trackage from Nassau, Fla., to Yulee. Overhead traffic which moves over the line in "substantial volume," will be handled via an alternate route.

**TEXAS & PACIFIC**.—To abandon a 5.11-mile branch between McWilliams, La., and Indian Village. The authorization came in a report by the entire commission which reversed a 1951 report of Division 4. However, the commission refused to permit abandonment of operation, as a branch line, of a two-mile section of the same line near Plaquemine. T&P proposed to convert this section into a spur track.

**WATERVILLE RAILWAY**.—To abandon its entire line, approximately 4.5 miles, from Waterville, Wash., to Douglas. A 1948 flood washed away the line, and it was not rebuilt. Meanwhile,

the company has obtained a certificate authorizing it to operate as a motor common carrier between the two towns.

**WESTERN MARYLAND**.—To abandon its Carlos branch, a 1.4-mile line (with an additional 1.2 miles of sidings) running out of Carlos Junction, Md.

**WICHITA FALLS & SOUTHERN**.—To abandon its entire line, which extends from Wichita Falls, Tex., to Dublin, 168.4 miles. The same report authorized acquisition of control of W&S by the Chicago, Rock Island & Pacific, which proposes to operate a 106-mile section of the line for an experimental period of three years. To permit this experiment, without creating a situation that would require a new abandonment case, the commission deferred the effective date of the abandonment certificate insofar as it applies to the section RI proposes to operate.

### Securities

#### LI Asks ICC to Approve \$67,585,983 of Securities

The Long Island has applied for Interstate Commerce Commission authority to issue \$67,585,983 of new securities to take the road out of bankruptcy and launch its \$58,000,000 rehabilitation program.

If the ICC approves the proposed security issues, the LI will apply to the New York Public Service Commission and the Long Island Transit Authority for a certificate of approval detailing the program the road has agreed to undertake as a railroad (Continued on page 62)



A WEALTH OF IDEAS for articles on safety have been compiled and published by the American Railway Magazine Editors Association in a booklet which includes some of the best material on that subject that has appeared in member magazines during the past five years. Here the association's educational committee—comprised of (left to right) Edgar J. Hartney, Litchfield & Madison; T. J. Zirbes, Rock Island; Chairman

John Knifke, Santa Fe; Paul Ackerman, Pullman-Standard Car Manufacturing Company; and Charles Burrows, Illinois Central—examine the first copy. A. G. Dupuis, Milwaukee; Harold A. Lenske, North Western, and Dick Read, Frisco, also on the committee, were not in the photograph.

Next project for the group will be a similar compendium of articles on loss and damage.



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# GUN IRON

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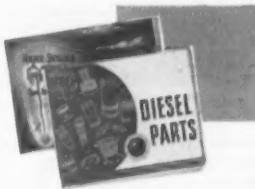
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today as a modern metal which can and does contribute to most efficient diesel performance. Its quality is always completely controlled as it is produced in our own furnaces, cast in our modern foundry and, when desired, can be completely machined in our own manufacturing plant.

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DO YOU WANT TO KNOW MORE of the products manufactured by Hunt-Spiller and the company behind them? These two brochures provide detailed information on diesel parts manufactured by the company and the production facilities being utilized. Copies of each will be sent without obligation upon request on your company letterhead.



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## Securities

(Continued from page 60)  
development corporation (*Railway Age* May 31, page 11).

New securities the ICC was asked to approve include bonds covering a \$5,500,000 loan the LI will receive from the Pennsylvania to be used as a down payment on new passenger equipment, and bonds and notes covering pre-bankruptcy indebtedness. The application specified that no interest or principal payment on the LI's pre-bankruptcy obligations can be made to the PRR during the rehabilitation period, and that all revenues in excess of basic operating expenses will be used for improvements.

### Security Price Averages

|   | July<br>20 | Prev.<br>Week | Last<br>Year |
|---|------------|---------------|--------------|
| Average price of 20 representative railway stocks | 69.02      | 69.15         | 64.09        |
| Average price of 20 representative railway bonds  | 95.32      | 95.31         | 90.14        |

### Dividends Declared

**ATLANTIC COAST LINE.**—\$1.25, quarterly, payable September 13 to holders of record August 16.

**CHESAPEAKE & OHIO.**—common, 75¢, quarterly, payable September 20 to holders of record September 1; 3½% preferred, 87½¢, quarterly, payable November 1 to holders of record October 7.

**CHICAGO & EASTERN ILLINOIS.**—common, 25¢, payable August 10 to holders of record July 21.

**CHICAGO, ROCK ISLAND & PACIFIC.**—common, \$1.25, quarterly; 5% preferred series A, \$1.25, quarterly; both payable September 30 to holders of record September 13.

**GEORGIA RR & BANKING.**—\$1.75, quarterly, paid July 15 to holders of record July 1.

**GREAT NORTHERN.**—new common, 55¢, payable September 24 to holders of record August 24. This represents an increase of 10¢ per old share over the former \$1-per-quarter basis in effect prior to the two-for-one split and classification from a preferred to common basis which took place July 2.

**LOUISVILLE, HENDERSON & ST. LOUIS.**—5% preferred, \$2.50, semiannual, payable August 15 to holders of record August 1.

**LOUISVILLE & NASHVILLE.**—\$1, quarterly, payable September 13 to holders of record August 2.

### Briefly . . .

... A group economy fare plan, which will provide savings of 25% under regular round-trip fares where three or more adults are traveling together in coaches, was inaugurated by the Boston & Albany July 22. The plan applies where the regular round-trip coach fare, including tax, is \$7.44 or more, between any B&A point and any point on the affiliated New York Central and certain other railroads where a similar plan already is in effect. The new group plan is in addition to the B&A's family-fare plan; tickets sold under it have a 30-day return limit; and two half-fare children are considered the equivalent of one adult in determining size of groups.

**MICHIGAN CENTRAL.**—\$25, semiannual, payable July 31 to holders of record July 9.

**ST. LOUIS-SAN FRANCISCO.**—62½¢, payable September 15 to holders of record September 1.

**SARATOGA & SCHENECTADY.**—\$3, payable July 15 to holders of record July 1.

**SEABOARD AIR LINE.**—\$1, quarterly, payable September 27 to holders of record September 16.

**WESTERN MARYLAND.**—7% first preferred, \$2.50, payable July 30 to holders of record July 23, for quarter ended March 31. If and when the WM's proposed plan of stock modification becomes effective, this dividend will constitute the third quarterly dividend, of \$1.25 a share, for the quarter ended March 31, 1954, on the proposed new 3% first preferred stock, to be dated July 1, 1953, and issued in the ratio of two shares for one of the present 7% preferred.

three members, the other two being the Texas & New Orleans and the Texas Mexican.

### Georgia Southern & Florida.—

**Acquisition.**—Division 4 of the ICC has authorized this company to acquire control of the South Georgia and the Live Oak, Perry & Gulf through purchase of not less than 55% of each of the latter roads' capital stock, and to lease the property of the SG. The property-lease agreement is for five years at a basic annual rent of \$25,000. The LOP&G is to be operated as a short-line railroad, while the SG will be operated by the GS&F. No immediate operating changes are contemplated.

### Missouri Pacific-Texas & Pacific.—

**Sell Seatrail Stock.**—Seatrail Lines, Inc., has purchased from the MP and the T&P, respectively, 132,990 shares and 132,930 shares of its own stock formerly held by those two railroads. The purchases were reportedly made at \$14 per share, indicating a price to the MP of \$1,861,860 and to the T&P of \$1,861,020. The MP's 1953 annual report gave its Seatrail stock a book value of \$385,780; the T&P valued its shares at \$385,609—a little less than \$3 per share in each case.

### Northern Pacific.—Oil and Gas Leases.—

A lease covering NP lands in the Big Coulee-Hailstone area in Golden Valley and Stillwater counties, Montana, has been negotiated with the Northern Natural Gas Producing Company. Three wells are to be drilled—one of them to start "in the immediate future." Under another agreement, the Phillips Petroleum Company will drill not less than two wells—and may drill four—on NP lands in Rosebud county.

### Western Pacific.—Incorporation Amendment.—

Stockholders have approved a proposal to amend the company's articles of incorporation to conform to indentures of the present series of first and refunding mortgage bonds. In effect, the move restores to management the right to select methods of financing improvements without first obtaining approval of preferred shareholders.

### Investment Publications

[The surveys listed herein are for the most part prepared by financial houses for the information of their customers. Knowing that many such surveys contain valuable information, *Railway Age* lists them as a service to its readers, but assumes no responsibility for facts or opinions which they may contain bearing upon the attractiveness of specific securities.]

**R. W. Pressprich & Co., 48 Wall st., New York 5.**

*Great Northern Railway Company.*  
*A Traffic Analysis.*

*Railroad Equipment Debt Maturities vs. Depreciation Charges.*

**Vilas & Hickey, 49 Wall st., New York 5.**

*Gulf, Mobile & Ohio R.R.* July 12.  
(Continued on page 66)



Photo shows typical rubber products. All rubber parts are made to exacting specifications right at the Westinghouse Air Brake Company plant so that quality can be closely controlled.

**FOR GENUINE ECONOMY**  
**get genuine replacement parts direct from Westinghouse Air Brake**

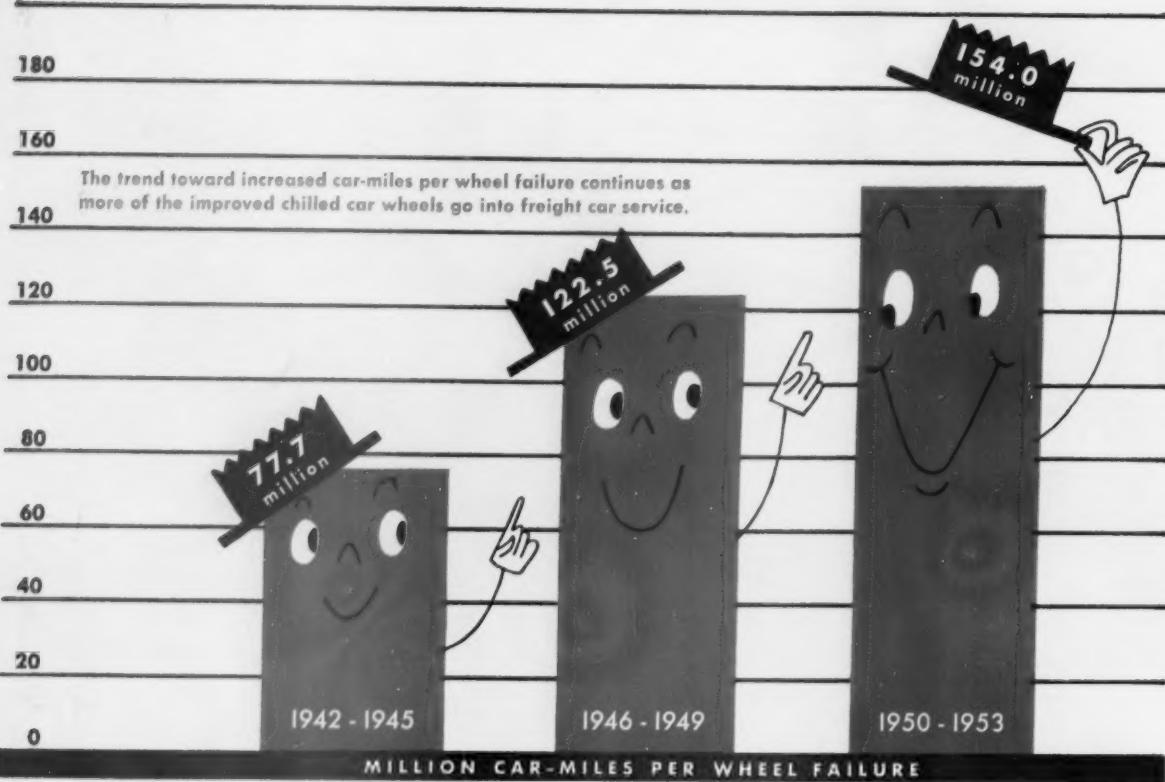
**GENUINE** is the word for Westinghouse Air Brake replacement parts. They are a real help to your maintenance forces in restoring brake equipment to original manufacturer's standards. It is important that these standards be maintained

**NEW MOVIE AVAILABLE** entitled, "AT THIS MOMENT"—showing a vivid story of modern railroad progress. Length 26 minutes, on 16 mm. color sound film. For use of film write: United World Films, Inc., 1445 Park Ave., New York or Association Films, Inc., 347 Madison Ave., New York.

to realize functional reliability for which air brake equipment has long been noted.

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COMPANY**

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## Another safety performance record for AMCCW Chilled car wheels!



The AMCCW chilled car wheel that established a new high in safety performance in 1953. This design adopted by the AAR in 1950 puts more brackets, thicker, heavier, more continuous flange support and heavier tread into the AMCCW chilled car wheel.\*

The bar chart tells a story of continuous improvement in the performance of chilled car wheels over the past dozen years. Figures are based on ICC records of car-miles per wheel failure.

|           |                       |
|-----------|-----------------------|
| 1942-1945 | 77,700,000 car-miles  |
| 1946-1949 | 122,500,000 car-miles |
| 1950-1953 | 154,000,000 car-miles |

What this grouping of records into four-year periods does not show is that the year 1953 was 50% better than any other year since records have been kept, a product performance story that is the more remarkable in view of the increased speeds and increased loadings in modern freight service.

Matter of fact, the whole story is even better. When derailments caused by loose wheels and worn flanges are taken into consideration, the AMCCW chilled car wheel has the best safety record of any type of wheel in freight car service.

The record for the freight cars you now equip with new AMCCW chilled car wheels could readily exceed the safety performance illustrated above, because the graphs are based on average performance of old type as well as new improved chilled car wheels.

- Low first cost • Low exchange rates
- Reduced inventory • Short haul delivery • Increased ton mileage • High safety standards • Complete AMCCW inspection • Easier shop handling



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Albany Car Wheel Co. • ACF Industries, Inc. • Marshall Car Wheel & Foundry Co. • Southern Wheel (American Brake Shoe Co.) • Griffin Wheel Co. • Pullman-Standard Car Mfg. Co.

## Current Publications

### PERIODICAL ARTICLES

ANYONE FOR MONORAIL? Fortune, July 1954, p. 106. Time Inc., 9 Rockefeller Plaza, New York 20. Single copies, \$1.25.

Can major U.S. cities afford new rapid-transit facilities—or afford to do without them? Los Angeles, facing this urgent question, is being urged to buy a 45-mile monorail line for \$165 million.

THERE'S ROOM FOR IMPROVEMENT, by Richard L. Neuberger. Railway Progress, July 1954, pp. 10-16. Federation for Railway Progress, 1430 K St., N.W., Washington, D.C. Single copies, 35¢.

A look at railroad maps today leads the writer to believe "there's room for improvement" which would make these maps more interesting to travelers and shippers.

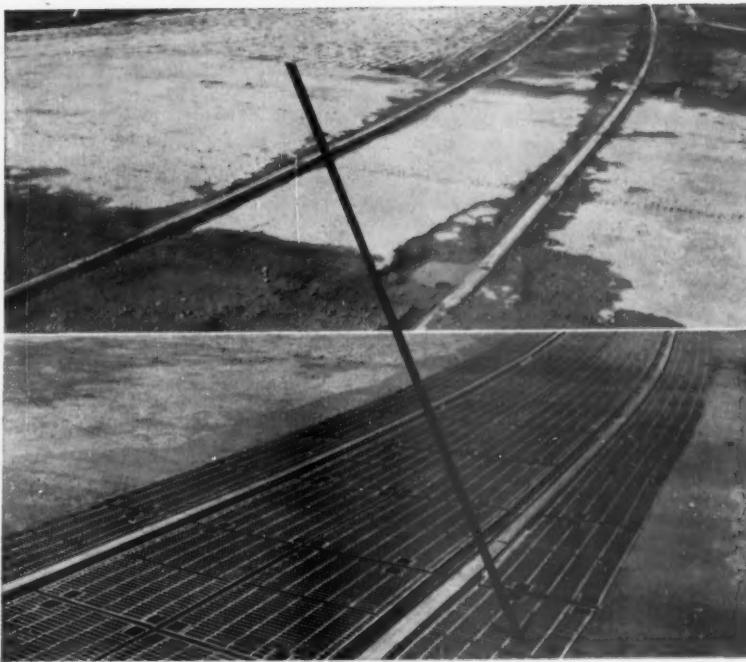
### BOOKS

ELEMENTS OF RAILWAY SIGNALING. Handbook 50, June 1954. Illustrations, drawings. General Railway Signal Company, P.O. Box 600, Rochester 2, N.Y. \$3.50.

Issued by GRS to celebrate its fiftieth anniversary and to help the signalman—especially the newcomer in the field—get a better understanding of signaling systems, of their principles of operation, and of how these principles are applied. It presents a broad overall view of how signaling improves railroad operation and provides a base from which the inquiring mind can reach out to acquire more specialized knowledge.

WHO'S WHO ELECTRONIC DISTRIBUTION, 1954, edited by Robert A. Harris. 376 pages. Radio & Electronic Jobber News, Inc., 848 Leader bldg., Cleveland 14, Ohio. \$7.50.

Designed as a primary source guide for buyers of radio-television-electronic components and equipment, this directory contains alphabetical listings of manufacturers, manufacturers' representatives and parts distributors. A special feature of the 1954 edition is a listing of electronic parts distributors catering to industry-type accounts. Distributors in this section of the book are listed by localities under names of manufacturers whose products they stock and sell. Another feature is a listing of suppliers by products. Names of suppliers are thus pinpointed by a product classification breakdown in which more than 300 types of equipment are given. An alphabetical listing of more than 1,000 product trade names also is included.



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J. M. Moore, Denver Colorado

Brodhead Steel Products Company  
San Francisco, California

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### BLAW-KNOX EQUIPMENT DIVISION GRATING DEPARTMENT



## Financial

(Continued from page 62)

Minneapolis, St. Paul & Sault Ste. Marie R.R. (A low priced speculation). July 8.

Smith, Barney & Co., 14 Wall St., New York 5.

Railroad Earnings. Railroad Bulletin No. 168. July 12.

## Railway Officers

CANADIAN PACIFIC.—G. D. Pogue, assistant superintendent at

Smith's Falls, Ont., has been transferred to the Smith's Falls division at Ottawa, succeeding G. E. Pielow, transferred.

M. S. Wakely, assistant division engineer at Calgary, has been promoted to division engineer there, succeeding W. S. M. Davidson, transferred to Lethbridge, Alta. E. C. B. Macnabb, district engineer at Moose Jaw, Sask., has been named division superintendent at Saskatoon, Sask., succeeding A. E. Hartley, who has retired after 44 years of service. F. A. Felstead, assistant district engineer at Calgary, Alta., advances to succeed Mr. Macnabb.

H. A. V. Green, solicitor for the Manitoba and Saskatchewan districts, has been appointed to the new post of assistant general solicitor, having

general supervision over company law offices in the west, with headquarters as before at Winnipeg. H. M. Pickard, assistant solicitor there, succeeds Mr. Green as solicitor.

### CHICAGO & NORTH WESTERN

—CHICAGO, ST. PAUL, MINNEAPOLIS & OMAHA.—Ralph W. Barnes, city passenger agent at Minneapolis, has been appointed assistant general passenger agent there, succeeding E. M. Petschel, who has retired.

Frank G. Fitz-Patrick, vice-president in charge of traffic at Chicago, will retire August 31, after more than 48 years of service. Elected as his successor is Robert O. Small, vice-president—rates and divisions.

### CHICAGO & WESTERN INDIA-

—BELT RAILWAY OF CHICAGO.—L. S. Riha, assistant purchasing and supply agent, has been appointed purchasing and supply agent of both companies, at Chicago, succeeding Charles W. Yeaman, who has retired at his own request after 44 years of service.

### CHICAGO GREAT WESTERN.—

H. D. Goodwin has been appointed assistant general freight agent at Kansas City, Kan., succeeding C. R. Seel, assigned to special duties at Mason City, Iowa.

### CHICAGO HEIGHTS TERMINAL TRANSFER.—R. R. Smith,

assistant general agent of this Chicago & Eastern Illinois subsidiary, has been advanced to general agent, to succeed P. S. Lottinville, retired.

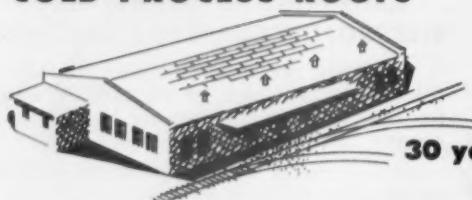
### FORT DODGE, DES MOINES &

SOUTHERN.—P. D. Robertson, assistant traffic manager at Boone, Iowa, has been advanced to traffic manager there. Mr. Robertson began his railway career in 1915 with the Great North-

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CHESAPEAKE & OHIO.—J. P. Donovan, assistant freight traffic manager at Detroit, who has been named freight traffic manager at San Francisco (*Railway Age*, June 28, page 26).



Fragile freight shipments arrive intact—and with no lading claims to follow—in cars equipped with "Railway" springs.

These rugged, long travel coil springs pamper your loads in a way that pleases your shippers, cuts wear and tear on your rolling stock and lowers roadbed maintenance costs.

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ern; joined the FDDM&S in 1926, and has been traveling freight agent, chief clerk to traffic manager, and assistant traffic manager.

**Paul G. Teegardin** has been named assistant to traffic manager at Boone, while **L. G. Halleck, S. J. Karthaus**, and **J. E. Renquist** become general freight agents at Chicago, Des Moines and Fort Dodge, respectively.

**GULF, MOBILE & OHIO.** — **D. S. Wright**, general counsel at Mobile, Ala., has been elected to the newly created office of vice-president and general counsel at that point.

**C. B. Whitlow**, assistant to chair-

man at Jackson, Tenn., has been named assistant to president.

**G. A. Rush**, auditor passenger and station accounts, has been appointed assistant comptroller at Mobile. Mr. Rush will retain direct supervision of the passenger and station accounting department.

**HARBOR BELT LINE.** — **A. G. Perkins** has been named general manager at San Pedro, Cal.

**HIGH POINT, THOMASVILLE & DENTON.** — **Fred J. Flagler**, general freight agent, has been appointed special traffic representative at High Point, N.C. **John T. Bruton**,

assistant general freight agent, has been named general freight agent in charge of sales and services.

**JERSEY CENTRAL LINES.** — **Clifford S. Strang**, office manager in the operating department, has been appointed assistant to vice-president and general manager at Jersey City, N.J. **Samuel Kuritsky** succeeds Mr. Strang



Clifford S. Strang

as office manager. **Albert J. Trushelm**, assistant superintendent floating equipment at Jersey City, has been named mechanical engineer at Elizabethport, N.J.

**LACKAWANNA.** — **C. Leon Thomas**, engineer of communications at Hoboken, has retired after 40 years of service.

**C. Fred Cotton** has been appointed general agent at New Haven, Conn., succeeding **W. J. Wynne**, retired (*Railway Age*, July 12).

**MISSOURI-ILLINOIS.** — **C. Floyd Sutterfield** has been appointed gen-

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nothing short of genuine MINK**

**For Locomotives or any type of Rolling Equipment**

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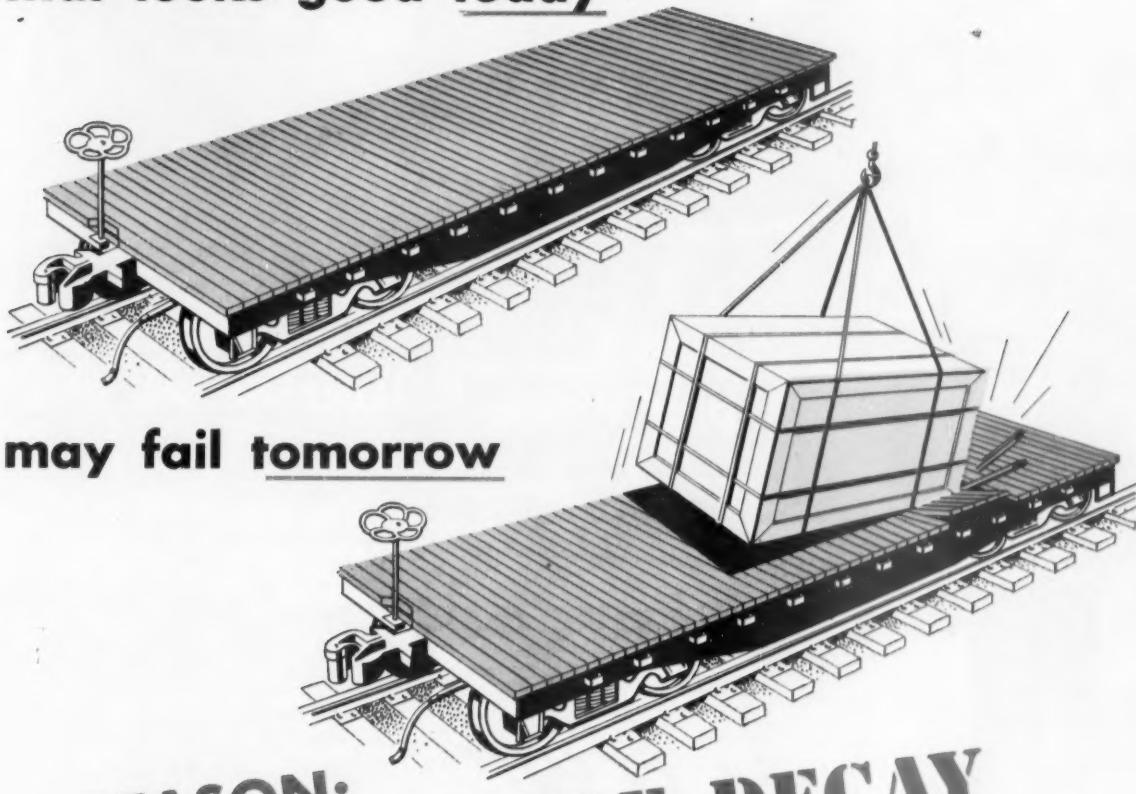
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**NORTHERN PACIFIC**—**N. M. Lorenzen** (above), assistant to general manager at St. Paul, has been named division superintendent at Missoula, Mont. **D. H. King**, (below), assistant division superintendent at Glendive, Mont., becomes assistant to vice-president at St. Paul (*Railway Age*, May 24).

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## FOR WAYSIDE FUELING STATIONS



**SOUTHERN PACIFIC.**—Raymond E. Marks, assistant tax commissioner, who has been named assistant to vice-president at San Francisco.

eral freight agent at St. Louis, succeeding **R. S. White**, resigned.

**Monon.**—**Roy J. Becker** has been appointed assistant general freight agent (rates) at Chicago, succeeding the late **Fred M. Ford**.

**SANTA FE — PANHANDLE & SANTA FE.**—**Roger D. Wood** has been named safety supervisor at Clovis, N.M., succeeding **E. E. Engleman**, transferred.

**SOUTHERN PACIFIC.**—**Rex R. Baymiller**, assistant division engineer at Dunsmuir, Cal., has been advanced to division engineer there, succeeding **H. F. Dully**, who has been transferred to Sacramento to replace **W. F. Turner**, retired. **Albert L. McHenry** becomes senior assistant division engineer at Dunsmuir.

### OBITUARY

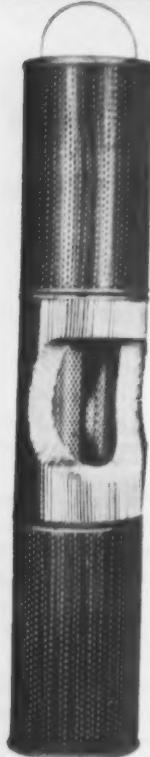
**Joseph P. Blum**, retired general purchasing agent of the **Burlington** at Chicago, died July 14.

**John Ragan Collinsworth**, right-of-way agent of the **Illinois Central** at Chicago, died July 14 at his home in that city.

**Irwin L. Gordon**, who retired as publicity manager of the **Reading** last April 30, after 29 years with that company, died of a heart attack at his home in Bywood, Pa., on July 21.

**Michael J. Curry**, 74 retired vice-president, assistant secretary and assistant treasurer of the **Western Pacific**, died at New Rochelle, N. J., hospital, July 20.

Mr. Curry, who spent nearly 50 years in railroad service, was also vice-president and assistant secretary of the **Denver & Rio Grande Western**.



Cutaway view of typical element. The unit shown above measures only 27 in. in height yet contains 6,000 sq. in. of surface area.

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HERE'S positive, economical protection for your diesel fuel injection system. PUROLATOR Wayside Filters out-perform old style filters by a wide margin—and cost less unit-wise, because of fewer replacements. These Micronic filters provide high flow rates in a minimum of space. The pleated, accordion design of the Micronic filter element provides many more times dirt storage space. The unit shown at left measures only 27 in. in height yet contains 6,000 sq. in. of surface area.

You can pump 230 gals. a minute with minimum pressure drop. This means long life for the unit, low current consumption and less wear and tear on the pumps. Elements can be provided in any size to fit your existing equipment. You owe it to your diesels to get the whole story. Write, wire or phone for full particulars.

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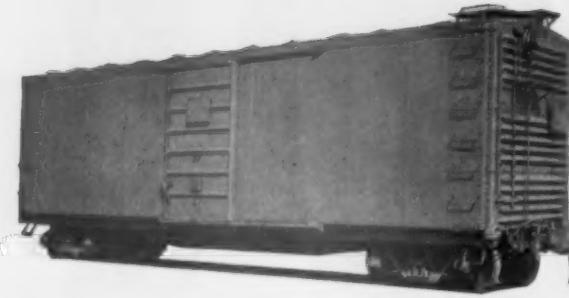
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| Light Weight, Approx. ....      | 45,900 Lbs.  |
| Load Limit .....                | 90,100 Lbs.  |
| Inside Length .....             | 40 Ft. 6 In. |
| Inside Width .....              | 9 Ft. 2 In.  |
| Inside Height (at Sides) .....  | 10 Ft. 0 In. |
| Inside Height (at Center) ..... | 10 Ft. 6 In. |
| Door Width .....                | 6 Ft. 0 In.  |
| Door Height .....               | 9 Ft. 5 In.  |
| Cubic Capacity .....            | 3716 Cu. Ft. |

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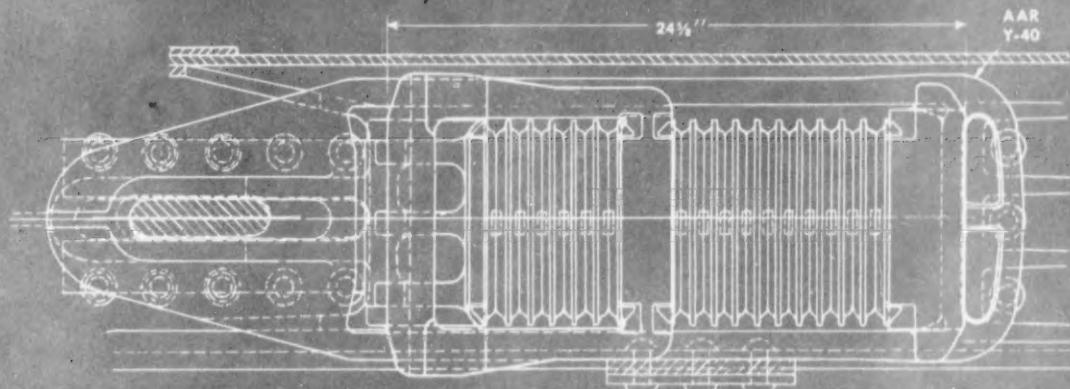
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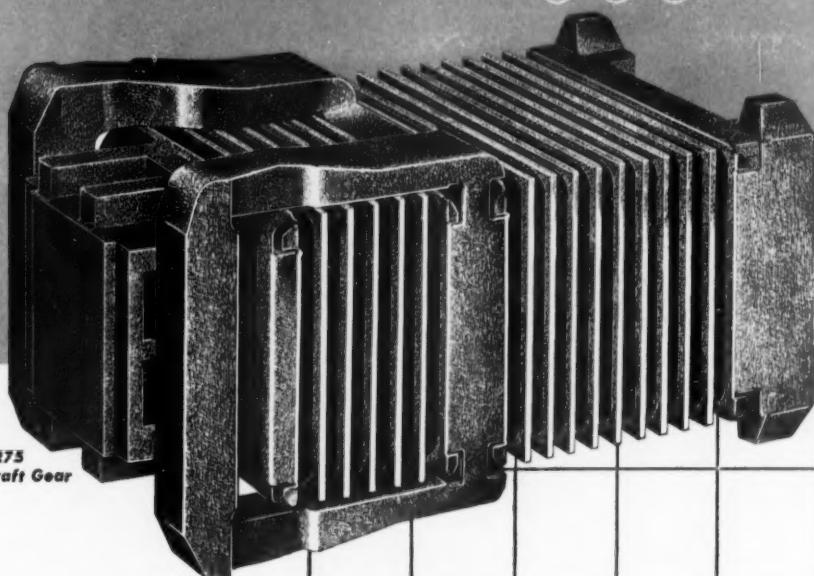
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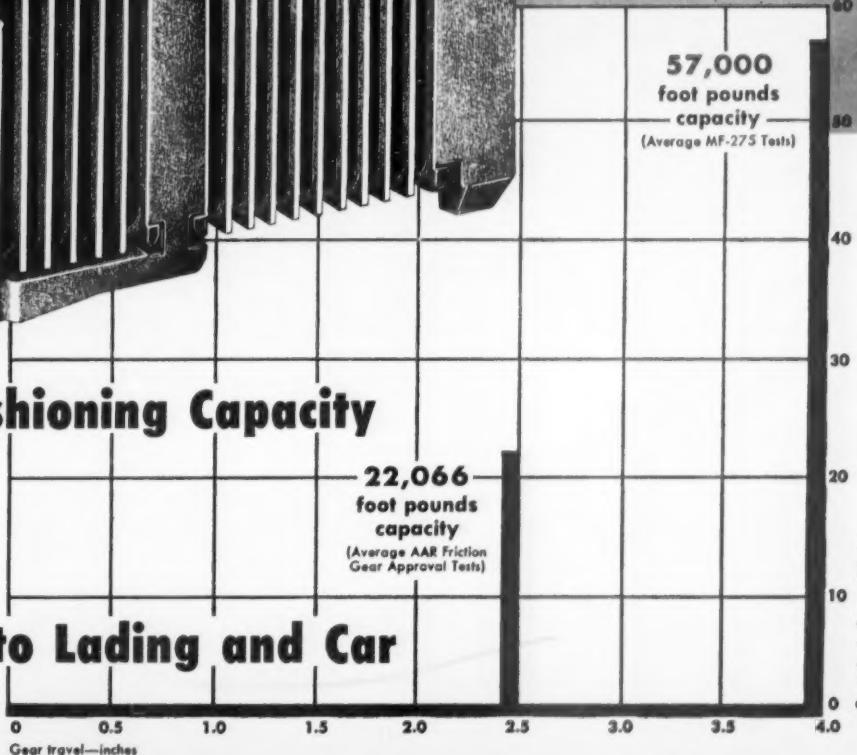


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